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Mongolia

Country Economic Memorandum

Priorities in Macroeconomic Management

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CURRENCY EQUIVALENTS

Currency Unit: Tugriks

\$1.00 = Tg 415

1.00 = \$ 0.002

FISCAL YEAR

January 1 - December 31

WEIGHTS AND MEASURES

Metric System

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MONGOLIA

PRIORITIES IN MACROECONOMIC MANAGEMENT

EXECUTIVE SUMMARY

Recent Economic Developments

- i. Mongolia's GDP declined for four years in a row between 1989 and 1993. The cumulative loss in national income amounted to 20 percent, real private consumption per capita declined by a third, and real investment by two-thirds. Inflation accelerated, reaching 330 percent in 1993, exports and imports fell by more than half between 1990 and 1993. These changes are associated mainly with severe external shocks, especially the withdrawal of Soviet aid, the dissolution of the CMEA, which accounted for 95 percent of Mongolia's exports, and unfavorable terms of trade. To attain macroeconomic stability, fiscal and monetary policies were tightened; and to stem economic decline and spur growth, the Government introduced fundamental reforms to liberalize domestic and international trade, free domestic factor markets, privatize public assets, and improve private incentives to save and invest. New donors have been assisting Mongolia since 1991.
- ii. To the credit of the Mongolian authorities, the worst of the country's economic contraction may be over. Real GDP contracted by only 1.3 percent in 1993, and, on the basis of available data, is projected to grow at a rate of 2.5 percent in 1994. The annual rate of inflation^{1/} peaked in January 1993 (420 percent) and had declined to about 68 percent by August 1994. The month-on-month inflation rate also declined during the first half of 1994 before rising sharply in July due to continuing price reforms. It subsequently turned negative in August, 1994, quieting fears that the economy was about to experience another bout of inflation.
- iii. Some advances have been made on the external trade front. Notable has been the sharp expansion in the export volume of skins and leather goods, products in which Mongolia has a comparative advantage. In addition, Mongolia's direction of trade has diversified considerably, reducing the risk of disruption and introducing greater stability in export earnings. In 1985, almost all of Mongolia's trade was with the CMEA bloc; today, the CMEA share is only half. China now imports close to a third of Mongolia's exports when a decade ago trade between these two countries was negligible.

^{1/} Measured as the increase in the price index of any month with respect to the price index of the same month in the previous year.

iv. Price and trade liberalization are bringing benefits to Mongolia. New activities such as garment industries, services, domestic and international trading are all on the rise. Meat, meat products, skins and hides are produced and exported in increased amounts. The composition of livestock is changing in line with price signals. For example, the number of goats rose from 19 percent of the total in 1989 to 24 percent in 1993 as a result of better cashmere prices for the producers. Construction is recovering. International trade employs over 30,000 Mongolians. At the same time, old oversized industries (wood, leather, furniture, poultry, etc.) which were previously protected by cheap inputs and secured export markets are reducing their activities. Exports are not taxed. Import duties are low and uniform: 15 percent. However, there are still some price controls applied by local authorities. The export of raw cashmere has recently been. This is an exception to what is otherwise a very liberal price and trade system.

v. Some benefits of privatization are yet to be fully realized. The economy has benefited from the privatization of livestock and small businesses. For example, the increase in livestock products has been noticeable in 1993, as is the number of new business in the main cities. Food production and processing plants in Ulaanbaatar grew by over 70 percent in 1993; retail food shops by over 30 percent, tailors by about 30 percent. However, privatization of large enterprises has not been very effective. Since secondary trading of blue vouchers (used for privatization of large enterprises) was not permitted, the ownership structure of large companies is quite diffuse, undermining the effectiveness of corporate governance and, therefore, their ability to conduct business efficiently. Moreover, the government has kept, in most cases, a majority or substantial participation in large privatized companies. This has been the case for agricultural units in which decision-making power has not been transferred to families. Effective privatization of large enterprises will require the establishment of a secondary market so as to consolidate ownership. The Government should also privatize, possibly for cash, its share in most large enterprises (now that domestic savings are increasing and most vouchers have been already utilized). There are many fully-owned public enterprises that the Government plans to privatize in the near future (flour mills, petroleum distribution, etc.). The enactment of the Land Law will be important for completing the privatization of agricultural units. However, families can assume the management of agricultural units even before the Land Law is enacted.

Main Policy Issues and Recommendations

vi. Several issues demand urgent attention. The battle against inflation is far from over. In fact, the monetary base has been growing by over 100 percent per year in recent months due to the rapid increase in directed/subsidized credits to some Government enterprises (flour mills, Petroleum Import concern, Central Electricity Company, etc.). Several tariffs remain very low and need to increase further. The Government has been increasing tariffs very consistently in the last 18 months. However, electricity tariffs are half of those prevailing in most Asian countries. By the same token, housing rents are very low and do not compensate even for maintenance work undertaken by the Government. Securing external aid will continue to be crucial to finance the public investment program which, in turn, is a prerequisite for sustained economic growth. Even under an optimistic scenario, Government savings will not be sufficient to finance more than 25 percent of the investment requirements. Eliminating those few but important trade and price restrictions mentioned before will be very important as they affect the development of two promising sectors: livestock and services. Finally, there are still administrative screening processes of foreign investors in effect. These screenings slow down investments and should be minimized or abolished altogether, as the Government intends to do.

vii. Perhaps of greatest concern to the Government are the social dimensions of adjustment. The unemployment rate which is now 8.5 percent of the labor force, is expected to rise further as some industries close and the government contracts. Real wages halved between 1990 and 1992, and household data suggest that they declined by a further third in 1993. According to official accounts, the proportion of the population living below the poverty line climbed from 16 percent in 1992 to 26.5 percent in April 1994. About one in every four poor persons belongs to a family where not a single member is employed. Moreover, the population is expected to grow at a rate of 2.3 percent a year and the labor force at a rate of 3.4 percent a year. About 30,000 new entrants to the labor-force are anticipated every year. It is estimated that the economy needs to grow by at least 5 percent per year if these new entrants are to be absorbed in productive jobs *and* the unemployment rate is to decline gradually with time. If this rate of expansion is not achieved, as is likely for another year or two at least, unemployment and poverty can be expected to *increase* in the short term.

viii. These worrying trends in poverty and unemployment place a high premium on restoring growth in Mongolia. As noted earlier, GDP growth is expected to be positive in 1994, but it is necessary that growth accelerate to at least 5 percent a year by 1996 if unemployment is to be reduced. To achieve this will require a high order of macroeconomic management, especially in ensuring continued efforts at stabilization, implementing structural reforms, prioritizing public expenditures, and securing an affordable social security net to protect vulnerable groups and the poorest strata of Mongolian society. Particular attention should be given to the following issues.

ix. **Maintain the momentum of stabilization policies and structural reforms.** To ensure continued macroeconomic stability, a principal task of the Government will be to maintain a prudent fiscal policy. Credits to public enterprises should be controlled, tax administration improved and strict control of public expenditures and priorities across sectors should be enforced (see para. 12). A prudent fiscal policy will help in the implementation of a tight monetary policy geared to reducing inflation and strengthening the external position. **It is important that the Central Bank authorities limit credit to the Government and public enterprises to ensure that adequate resources reach the private sector while remaining within the prudent overall targets for the expansion of the money supply.** The development of indirect monetary management instruments will improve implementation of the financial program.

x. The authorities will need to be especially alert to developments in the banking sector. The recent sharp increase in real interest rates following the decline in inflation is likely to place an intolerable financial burden on borrowers from the banking system which, in turn, could worsen the already troubled portfolio of banks. The Government needs to complete quickly the assessment of the non-performing assets of the banking system and implement an action plan that covers loan provisioning, recapitalization of banks, and improved supervisory capacity in the Central Bank to prevent a re-emergence of similar problems in the future. Reduction in subsidized/directed credits to public enterprises is also a requirement for reducing interest rates to the private sector.

xi. Future international trade and exchange rate policies will need to consolidate recent gains and guard against policy reversals. Abolition of export licensing requirements for meat, meat products, and live animals, was a very positive step. The export ban on raw cashmere, on the other hand, will prove detrimental to the economy in the long run and should be rescinded.

xii. **Establish appropriate priorities in public finance.** To provide additional resources for public investment, a principal task of fiscal policy would be to achieve an annual *increment* to government savings equivalent to 1 percentage point of GDP each year. Continuing economic difficulties at home and limited external support from bilateral and multilateral donors will require the Government to husband its resources carefully, cut back on distorting subsidies, and allocate expenditures to high priority areas in energy, transport, telecommunications, education, and health. In allocating government expenditures, the Government will need to set up systems that consider the economic and social returns of all expenditures, including their support for the reform program, their impact on the poor, and their environmental consequences.

xiii. The Government could husband its resources by lowering expenditures without curtailing essential services. Perhaps the greatest potential for such efficiency gains in the budgetary current account can be acquired by lowering the wage and salary bill through a further reduction in the size of the civil service. Although the wage bill has more than halved as a share of GDP from 9.8 percent in 1991 to 4.7 percent in 1993, some estimates suggest that the Government remains overstaffed by between 15 and 20 percent of its total size, or about 17,000 and 24,000 people. Another area where the Government could economize on current expenditures is through additional reductions in subsidies, especially for energy and transport. Prices for rural electricity, for example, may need to be raised and, even though the Government raised urban bus fares by 200 percent in real terms in mid-1994, urban transport subsidies continue to be excessive.

xiv. The increase in the efficiency of health and education expenditures will need to be a high priority in the Government's public expenditure program. Not only should resources allocated to these two sectors be economized but the quality and quantity of services also need to be improved. A sizable part of public expenditures on health will be saved as public hospitals are reimbursed by the newly introduced National Health Insurance Scheme. In addition, user charges by national and local authorities could reduce the government bill further. But when the Government uses these **savings to reduce public expenditures on health**, it would need to make sure that efforts to control infectious diseases (especially tuberculosis) are not jeopardized, and that the very poor should be exempt from paying the new user charges. As far as the educational system is concerned, resources are already being concentrated on strengthening primary education, reducing the drop-out rate, and investing more in books and libraries. To pay for these expenditures, stipends and food subsidies are being lowered at secondary and university levels, the complement of non-instructional staff is being reduced, technical and specialized schools are being converted into community colleges, tuition rates are being charged at post-secondary level, realistic interest rates are being applied on student loans, and more efficient technologies are being explored for heating schools during winter. Again special care will need to be taken that these initiatives do not exacerbate the difficult conditions of the poor.

xv. The intersectoral allocation of the public investment program is governed by the need to restore critical infrastructure and improve the productivity of existing and future investments. The program therefore emphasizes investment in power rehabilitation, transport improvement, and telecommunications. Over 70 percent of investment resources in the budget have been allocated to these three sectors. Few projects are financed in manufacturing, agriculture, finance, and trade where the policy of the Government calls for a growing role for the private sector and a gradual withdrawal of the public sector.

xvi. **Mitigate the social costs of adjustment.** The Government's strategy to alleviate the impact of the structural adjustment program on the poor has two elements. The first element seeks to promote the productive use of the poor's most abundant asset -- labor. This calls for policies that harness market incentives, investments in physical capital and infrastructure, and the development of social institutions to promote labor productivity. The second element is to provide basic social services to the poor: primary health care, family planning services, nutrition, and primary education. In addition, as a temporary measure, the Government needs to introduce employment generating activities that are self-selecting (only the poor work for minimum wages) and, at the same time, contribute to infrastructural development in the country. According to the Government, a combination of growth in the economy and poverty alleviation measures implemented by government and non-government agencies should reduce the number of poor from 26 percent of the population in 1994 to about 10 percent of the population by 2000. This is, indeed, a very ambitious target.

xvii. Donors are already active in Mongolia supporting programs to improve health services, provide educational assistance, expand employment, and provide onlending activities to the poor. It is important that support for these programs is continued and, if possible, increased. In particular, help for the old and the disabled, the provision of health services to rural areas, especially for pre- and post-natal care, the provision of clothing to children, and programs targeted at lowering drop-outs. Over the longer term, the Government needs to ensure that all public expenditures should be evaluated not only on the strength of their economic returns but also on their contribution to expanding employment and reducing poverty. Thus, where possible, infrastructural projects (including maintenance and rehabilitation works) should employ appropriate labor-intensive techniques, and genuine community participation should be encouraged in the preparation of local projects for inclusion in the public expenditure program.

MONGOLIA

PRIORITIES IN MACROECONOMIC MANAGEMENT

1: STABILIZATION POLICIES AND MACROECONOMICS PERFORMANCE SOME PROGRESS, MANY CHALLENGES

Introduction

1.1 Mongolia is in the midst of a painful transition to a market economy. The natural difficulties of this transition have been exacerbated by severe external shocks that the economy had to absorb following the collapse of the former Soviet Union. Soviet aid was abruptly withdrawn in 1989-90¹. A sudden shortage of spare parts and machinery from the Soviet Union caused serious problems to Mongolian industry which had become heavily reliant on Soviet technology. Trade with other members of the CMEA was also disrupted, forcing Mongolia to find new trading partners and export markets. To make matters worse, the terms of trade turned against Mongolia when the price of key exports, notably copper and cashmere, declined in world markets, and demand in convertible currency markets became sluggish. The terms of trade loss suffered by the country since 1990 amounts to 4.5 percent of GDP.

1.2 Prompted by these international events and internal developments, the Mongolian Government initiated a wide-ranging reform program in 1990. To attain macroeconomic stability, fiscal and monetary policies were tightened using a wide variety of measures. To restore economic growth, the Government introduced fundamental reforms to liberalize domestic and international trade, free domestic factor markets, privatize public assets, and improve private incentives to save and invest.

Brief Background

1.3 Mongolia attained formal independence in 1921. After that it integrated fully with the former Soviet Union and isolated itself from the rest of the world. With an area of 1.6 million square kilometers (half the size of India and almost as big as Indonesia) and a population of only 2.2 million people, Mongolia has one of the lowest population densities in the world. Mongolia followed the Soviet model of a centrally planned command economy, emphasizing the development of industry and energy. The country is well-endowed with natural resources. However, it has a semiarid continental climate. Its pastures and grasslands are home to over 24 million head of livestock, or over 10 per person. Arable land is relatively abundant at 0.63 hectares per capita (China has only 0.08 and Vietnam 0.10), albeit of low productivity. Mongolia has sizable reserves of copper and other minerals, allowing the country to export over \$100 per capita in minerals alone. The country has the potential for petroleum production in commercial quantities. Finally, Mongolia has a well educated population with an adult literacy rate of 96 percent.

¹ According to some estimates, Soviet aid amounted to 30 percent of GDP.

1.4 As referred to before, Mongolia received substantial aid from the Soviet Union. It used this assistance to build an industrial/mineral base (copper mines, leather and wool plants, food processing industries). The Soviets helped build the transport system (Russia owns 49 percent of the Railways Company), provided fuel, supplied and ran the power plants, and financed fellowships for several thousands of students (5,000 students were studying in CMEA countries in 1990). It enjoyed a "captive" market for its products in CMEA countries. Benefiting from large amounts of aid and captive markets, the Mongolian economy grew by 6 percent a year during the first part of the 1980s, slowing to about 4-5 percent in the latter half.

1.5 The country's economy is relatively diversified. The agricultural sector (including livestock) accounts for over 25 percent of the GDP. Livestock comprises three-quarter of agricultural value added (meat, hide, wool, cashmere), while crops make up the rest (low quality wheat and vegetables for domestic consumption). Industry accounts for around 35 percent of GDP, and includes mining (which earns half of all foreign exchange), processed wool, cashmere, leather, and food (mostly meat, and dairy products), and construction materials. The services sector accounts for about 35 percent of GDP. It includes a large government sector (including health, education, administration, transport), a weak banking system, and an underdeveloped wholesale and retail trading sector.

1.6 Several of Mongolia's industries suffer from excess capacity, and its infrastructure requires modernization. The industrial sector (excluding mining) employs over 100,000 people (an eighth of the labor force). Those firms that depended upon the now-extinct CMEA market employ over 35,000 people (leather, wool processing, meat and wood). This is where the bulk of the adjustment is taking place (employment in the industrial sector dropped by 7 percent in 1993). Power plants are old, and unreliable electricity supply hurts industries and households. The lack of telecommunications facilities is an impediment to private sector development. A tentative estimate indicates that at least 17-24,000 government employees are redundant, although civil service reform and staff reduction were initiated in some Ministries in 1992.

1.7 The difficulties of managing an economy in transition, together with the impact of external developments, resulted in a sharp deterioration in economic performance. Real GDP fell for four years in a row between 1989 and 1993, the cumulative loss amounting to 20 percent. Real private consumption fell by a third and real investment by two-thirds. Inflation suddenly accelerated, reaching 330 percent in 1993. Exports fell by 44 percent in 1990 and a further 22 percent in 1991. The compression of imports was even more severe, falling 50 percent in 1990-91, as disbursements of aid plummeted. The country struggled to adjust to a sharp deterioration in both its external payments position and the government's fiscal accounts.

1.8 This report reviews these macroeconomic developments, assesses progress in the implementation of economic reforms, and highlights future priorities in macroeconomic management. Important progress had been achieved in stabilization and structural change. However, the fragility of the Mongolian economy and the hesitancy in its supply response demands further efforts on the part of the authorities to maintain macroeconomic stability, implement additional structural reforms, prioritize public expenditures, and secure an affordable social security net to protect vulnerable groups.

1.9 The report begins with a brief review of the stabilization and structural reforms introduced by the Government, assesses their impact on the economy, and highlights key policy issues that still need to be addressed. It then examines issues pertaining to public finance and priorities in public

expenditure management. Finally, the report examines the question of poverty and suggests a course of action to mitigate the social and economic impact of reforms on the most vulnerable groups in Mongolian society.

Policy measures to attain macroeconomic stability

1.10 As in other former socialist economies, inflation in Mongolia was virtually nonexistent when plans dictated both prices and quantities. Prices were administered before 1991 and demand was managed through strict allocation. Government set farmgate, retail and wholesale prices, adjusted them infrequently, isolated them from each other, and kept them insulated from changes in (domestic and international) trade prices.

1.11 Life changed dramatically in 1991. Transfers from abroad began to shrink and economic activities declined. Faced with the need for reforms, the Government increased farmgate prices by 30-70 percent, doubled the prices of a wide range of commodities (including gasoline and other fuels) and increased the prices of coal and electricity by 75 percent and 94 percent, respectively. Monetary policies accommodated to price increases: currency in circulation increased by 130 percent; broad money by 52 percent (Table 1.10). From then on, inflation took on a life of its own, fed by expectations, flight from money, weak public enterprises, and fast monetary growth.

1.12 The expansionary monetary policies continued throughout 1992 and 1993. The monetary base increased by 142 percent in 1992 and 184 percent in 1993. This expansion in the monetary base was utilized to provide directed/subsidized credits to public enterprises and to increase, in 1993, net international reserves². Simultaneously, the monetary authorities established direct credit ceilings. Credit grew by 34 percent in 1992 and 54 percent in 1993. Enterprises which did not receive directed credits have been crowded out in the process. The final result: inflation accelerated to 146 percent and 330 percent in 1992 and 1993, respectively.

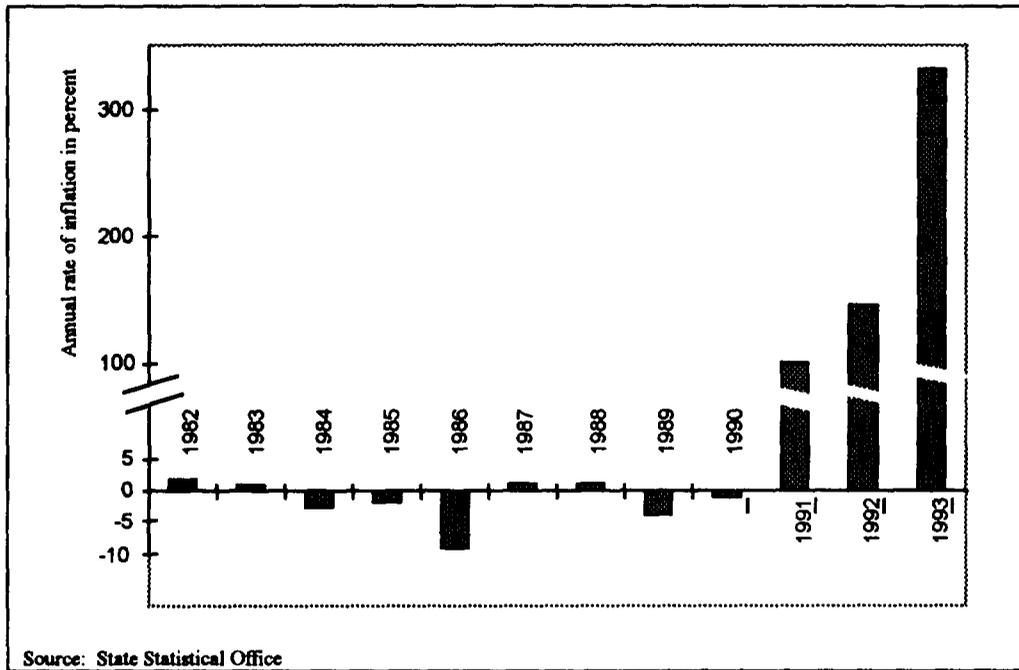
1.13 During the last part of 1993, however, inflationary pressures started to reduce. First of all, the economy was showing signs of recovery. Secondly, credit ceilings were strictly enforced to the point that domestic credit did not grow for the last part of 1993.

1.14 The situation during the first half of 1994 caused some concerns. Boosted by some public confidence in the stabilization program, inflation dropped further to the present rate of about 70 percent per year. However, the monetary base, broad money and even domestic credit continued to grow at a rate of over 100 percent per year. The Government has implemented, recently some tight controls on the monetary base and credit expansion. The full implementation of tight monetary policies, however will require reducing the level of directed credit to state enterprises (SOEs).

² Since at the end of 1992 international reserves were close to zero, the program implemented by the government in agreement with the IMF included an increase in reserves which now exceed 6 weeks of imports.

1.15 Reducing the level of directed credit to SOEs will present a major challenge to policymakers. This is the most vulnerable part of the stabilization program. Directed credits, which account for a third of all bank lending, are granted to agricultural units, flour mills, mining companies, industries

Figure 1.1: From price stability to high inflation
The annual rate of inflation, 1982-1993



in need of restructuring, and the Petroleum Import Concern. They are provided at subsidized interest rates and financed primarily by the expansion of base money (subsidized rates are variable and do not exceed 1-2 percent per month). Reducing the amount of directed credit quickly runs the risk of exacerbating the already difficult unemployment situation and lowering domestic production yet further. It will need to be done in combination with the restructuring of industries and job creation programs.

1.16 Foreign currency deposits constitute an important component of M2. In 1990, these deposits accounted for only 10 percent of quasi money and 3 percent of M2. By 1993, they had grown to 63 percent and 38 percent respectively. Further depreciation of the currency would increase the supply of broad money through its impact on these deposits. As inflation subsides, the depreciation of the currency slows and confidence in the local currency is restored, this source of M2 growth (from the liabilities side of the monetary survey) is expected to diminish in importance. Data for the first half of 1994 appears to bear this out. By end-June, foreign currency deposits had dropped to 47 percent of quasi-money and 26 percent of M2. These deposits have played a very positive role in facilitating international trade.

Table 1.1: The monetary survey, 1989-1993 a/

| | 1989 | 1990 | 1991 | 1992 | 1993 | June 1994 |
|-------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| (Billions of Tugrik; end of period) | | | | | | |
| <u>Net foreign assets</u> | <u>0.3</u> | <u>-0.1</u> | <u>-0.1</u> | <u>-0.5</u> | <u>20.2</u> | <u>28.8</u> |
| Net international reserves | 0.3 | 0.3 | 0.9 | 1.1 | 29.5 | 39.9 |
| Other foreign assets | 0.0 | -0.4 | -0.9 | -1.7 | -9.3 | -11.1 |
| <u>Net domestic assets</u> | <u>4.8</u> | <u>6.6</u> | <u>10.0</u> | <u>13.6</u> | <u>25.6</u> | <u>38.5</u> |
| Domestic credit | 5.9 | 6.6 | 11.0 | 16.2 | 25.0 | 38.7 |
| Net credit to Government | -2.1 | -1.5 | -1.7 | -2.7 | -6.7 | -9.3 |
| Credit to non-banks | 8.0 | 8.2 | 12.7 | 18.9 | 31.7 | 48.1 |
| Public enterprises | 7.6 | 7.6 | 9.6 | 12.0 | 21.8 | .. |
| Private sector | 0.4 | 0.5 | 3.1 | 6.9 | 9.9 | .. |
| Other assets | -1.1 | 0.0 | -1.1 | -2.6 | 0.7 | 0.2 |
| <u>Broad money</u> | <u>5.1</u> | <u>6.5</u> | <u>9.9</u> | <u>13.1</u> | <u>45.8</u> | <u>67.3</u> |
| Narrow money | 3.5 | 4.8 | 7.3 | 7.6 | 18.8 | 30.8 |
| Quasi money | 1.6 | 1.7 | 2.6 | 5.4 | 27.3 | 36.5 |
| Domestic currency deposits | 1.5 | 1.6 | 2.0 | 4.4 | 10.1 | 19.3 |
| Foreign currency deposits | 0.1 | 0.2 | 0.6 | 1.0 | 17.2 | 17.2 |
| Note: May not add due to rounding. | | | | | | |
| a/ End of period stocks. | | | | | | |
| Source: Bank of Mongolia | | | | | | |

1.17 **Public finance.** The operations of the Government, as reflected in the state budget, appear not to have been a major contributory factor to the recent rapid rise in inflation. Indeed, the Government was a net *creditor* to the banking system in 1993.

1.18 The consolidated state budget accounts for a large part of overall economic activities and covers the Central Government, 4 cities, 18 aimaks, and 351 somons. Although the state budget does not include the operations of SOEs, they finance a significant portion of their investment from

loans and transfers received from the budget. Total government expenditures (including net lending) averaged 64 percent of GDP during 1985-90, much higher than most economies in the world.

1.19 Since the initiation of the reform program, trends in revenues and expenditures reflect a contraction and reorientation of the role of Government. The old taxation system was overhauled radically. Total revenues as a share of GDP, which were as high as 50 percent in 1990, have declined steadily, reaching 30 percent by 1993 (see Table 1.2). Similarly, total expenditures as a share of GDP fell from 64 percent to 47 percent over the same period.

1.20 As noted before, not only has the Government's role been shrinking, it has also succeeded in reducing its borrowing from the banking system to the point of becoming a net creditor. In 1992, government borrowing from domestic sources amounted to 1.4 percent of GDP; in 1993, the government loaned resources equivalent to 0.9 percent of GDP to the banking system. Three factors contributed to this turnaround: improved revenue mobilization; more effective expenditure controls; and expanded external financing. External financing reached 18 percent of GDP in 1993, mostly for public investments. This level of external financing shows the important role assumed by donors after the collapse of the Soviet Union.

1.21 Several tax reforms were introduced in Mongolia to improve the revenue mobilization effort. Notably, the sales tax replaced the old turnover tax on SOEs in 1992. It is applied at a uniform rate of 10 percent on all imports, manufactures, and some services, and covers registered businesses with a turnover exceeding Tg. 5 million. The structure of income taxes on companies, cooperatives, foreign enterprises, and joint ventures has been simplified. Four tax brackets delineate a progressive income tax rate structure beginning at 15 percent and rising to a maximum of 40 percent, broadly in line with corporate income tax rates found in other parts of the world. The personal income tax structure has also been overhauled, and now incorporates six marginal tax brackets from 2 percent to 40 percent. Capital gains made on the sale of shares and real estate are subject to rates established under the corporate income tax. Excise taxes are now collected on petroleum, tobacco and spirits. Export taxes have been eliminated altogether and import duties have been set at a uniform rate of 15 percent. Finally, the motor fuel tax, introduced in 1992, has been raised to 20 percent of the fuel price, and its revenues are used to replenish the road maintenance fund.

1.22 Progress has also been made in controlling the growth of current expenditures, which have fallen as a share of GDP from 52 percent in 1990 to a little over 28 percent in 1993. Considerable strides have been made in the reduction of subsidies to SOEs, although this may be more illusory

Table 1.2: Summary of the budget
(as percent of GDP)

| | 1990 | 1991 | 1992 | 1993 |
|---|---------------------|--------------------|---------------------|---------------------|
| <u>Current revenue</u> | <u>50.6</u> | <u>47.4</u> | <u>30.0</u> | <u>30.2</u> |
| Taxes, fees, and charges | 43.0 | 42.7 | 26.3 | 28.7 |
| Non-tax receipts | 7.6 | 4.7 | 3.7 | 1.5 |
| <u>Current expenditures</u> | <u>51.9</u> | <u>51.7</u> | <u>31.1</u> | <u>28.3</u> |
| Wages and salaries | 8.6 | 9.8 | 6.7 | 4.7 |
| Purchases of goods and services | 18.0 | 13.6 | 12.8 | 12.9 |
| Subsidies to public enterprises | 14.1 | 7.3 | 3.7 | 2.1 |
| Transfers | 7.6 | 11.5 | 6.3 | 5.1 |
| Interest payments | 0.7 | 1.8 | 0.6 | 1.1 |
| Other | 2.9 | 7.8 | 1.0 | 2.4 |
| <u>Government savings</u> | <u>-1.3</u> | <u>-4.3</u> | <u>-1.1</u> | <u>1.9</u> |
| <u>Capital expenditure and net lending</u> | <u>12.2</u> | <u>5.4</u> | <u>11.3</u> | <u>18.8</u> |
| <u>Overall balance</u> | <u>-13.5</u> | <u>-9.7</u> | <u>-12.7</u> | <u>-17.0</u> |
| <u>Financing:</u> | <u>13.5</u> | <u>9.7</u> | <u>12.7</u> | <u>17.0</u> |
| External (net) | 10.5 | 9.7 | 11.4 | 17.9 |
| Domestic (net) | 3.1 | .. | 1.4 | -0.9 |
| Source: IMF | | | | |

than real. SOEs, cut off from budgetary resources, have come to rely heavily on subsidies channeled through the financial system in the form of credit at below-market rates and the non-repayment of bank debt, and this has, in part, contributed to the rapid growth of money supply (see para. 1.15). Moreover, several SOEs continue to enjoy subsidies in the form of below-market utility prices and rents and the accumulation of inter-enterprise arrears. More solid progress has been achieved in the reduction of the salary bill of the Government. Through retrenchment, natural attrition, mergers (between ministries and departments), efficiency improvements, and declines in real salaries the Government has successfully halved the

wage bill within two years, from 9.8 percent of GDP in 1991 to 4.7 percent in 1993. Similar headway has been made in the reduction of transfers for social security, as reforms have reduced benefits and lowered real pensions and transferred more of the financing burden to enterprises and employees.

1.23 By 1992, public investment was below the levels associated with the pre-reform era. In 1991 in particular, public investment dipped to 5.4 percent of GDP, less than half the level of previous years and about a third the average level in the previous decade. This was the immediate fiscal consequence of the withdrawal of Soviet aid, which coincided with a sudden deterioration in government savings associated with a weakening economy. But public investment recovered in 1993 as government savings turned positive to 1.9 percent of GDP and more external finance was available through the budget. As a result, capital expenditure and net lending reached 18.8 percent of GDP, higher than it had been for several years. Although still short of expectations, this was

considered satisfactory because investment planning in most sectors was still at an early stage, investments in the transport sector were just beginning, and capital expenditures in the energy sector were limited to rehabilitation rather than new investments.

Progress on structural reforms

1.24 In addition to overcoming the immediate problems of macroeconomic instability, the Government has also addressed itself to the challenge of introducing new policies and establishing new institutions for guiding and managing the transition to a market-based economy. These structural reform policies have been designed to improve market signals, promote competition, enhance allocative efficiency, and diversify the country's export earnings. They have been applied to three distinct parts of the economy: domestic goods markets; domestic factor markets; and international trade and exchange.

1.25 **Liberalizing the domestic market for goods and services.** The Government's role in domestic trade and distribution has declined substantially. In the past, state production, distribution, and procurement agencies were responsible for determining national production targets, setting quotas for agricultural production units at fixed prices, and distributing goods nationally through a "state orders" system. In the initial stages of the reform program during 1990-92, production quotas took the form of voluntary deliveries at negotiated prices. Private distributors made increasing headway in supplanting the state's procurement and marketing functions.

1.26 Price controls on goods were totally abandoned in 1993, and with them the last remaining remnants of state intervention in domestic distribution. State control of meat distribution was re-introduced in March 1993 only to be abandoned again by July 1993. Some "gray" areas of price intervention still remain, however, especially where local and municipal authorities occasionally issue price guidelines and price bands for local traders to follow.

1.27 Prices of utilities and services such as electricity, water, telecommunications, and housing continue to be subject to administrative controls. These are unlikely to be liberalized soon, although price adjustments should continue to make them more realistic, so as to reflect the true costs of production and delivery.

1.28 **Liberalizing domestic factor markets.** The liberalization of the domestic goods and factor markets has been mirrored by similar developments in factor markets. For example, Mongolia now enjoys free labor mobility. The new constitution allows Mongolians to travel and locate in any part of the country. The policy contrasts with the past when domestic and international travel were heavily controlled.

1.29 The Government has also completely eliminated wage controls in the private sector. A minimum wage is mandated, but it is so low that it is unlikely to hamper job creation. The Government, of course, sets the wages and salaries of civil servants and issues guidelines for the wages in the state enterprise sector. Private and public enterprises alike are required to pay two months salary as compensation to dismissed workers and, in addition, three months salary to an unemployment fund at the labor exchange. The unemployment fund, in turn pays minimum wages to the unemployed for a maximum of three months.

1.30 The Government has expended some effort in reforming the financial sector, especially improving monetary management by the Bank of Mongolia and developing a sound commercial banking system. The transition from a monobank system to a two-tier banking system was completed in June 1993 when all reserve management functions were shifted from the State Bank International to the Bank of Mongolia. Fifteen commercial banks, including one wholly private bank, now operate in Mongolia, which has generated some competition for deposits and lending. Action was taken to pass a Central Bank statute, introduce an interbank clearing and settlement system, and strengthen the Central Bank's supervisory capacity.

1.31 An important concern continues to be the weak financial condition of the commercial banks. A recent review of their portfolios revealed that 20 percent of their outstanding loans were non-performing. A joint committee of the Ministry of Finance and the Central Bank is to make recommendations on the required amount of provisioning, the possible need for rationalizing the commercial banking structure, and the necessary extent of bank recapitalization. The Government is expected to assume responsibility for servicing part of the delinquent loans and allocate funds for this purpose in the 1995 budget. To prevent the delinquent loan problem from re-emerging, the Central Bank is improving its supervisory and auditing capacity, and commercial banks are being encouraged to improve their risk appraisal techniques.

1.32 An important achievement of the Mongolian reform program has been its privatization program, which is expected to increase efficiency in key sectors of the economy and improve the depth of Mongolia's financial market³. The privatization program has moved ahead rapidly; initiated in July 1991 and reaching its objective of privatizing 44 percent of state-owned assets by the end of 1993. Vouchers valued at Tug 20 billion⁴ had been distributed to almost 2 million citizens by October 1993. Each citizen was offered Tug 10,000 worth of vouchers -- three red ones (to purchase shares in small enterprises) with a nominal face value of Tug 1,000 each and tradable on the secondary market and one blue one (to purchase shares in large enterprises) with a nominal face value of Tug 7,000, not tradable but assignable to nominees. Small non-agricultural assets were auctioned and large assets were sold through the Mongolian stock exchange. In terms of value, the largest blocks of privatized assets were from the agricultural and industrial sectors.

1.33 In many privatized companies, the state retains partial or majority ownership (see Table 1.3). The Government has announced its intent to sell for cash these remaining shares upon completion of the voucher privatization process. In addition, another 25 percent of state assets are to be privatized through cash sales in 1994.

³ For details see Annex I on the privatization process.

⁴ Amounts in 1991 prices.

Table 1.3: The extent of privatization
(number of privatized entities)

| | Large enterprises | | | Small enterprises | Total |
|--------------------|----------------------|--------------------|---------------|-------------------|--------------|
| | Majority state-owned | Partly state-owned | Fully private | Fully private | |
| Industry | 40 | 11 | 121 | 140 | 312 |
| Construction | 20 | 4 | 128 | 209 | 361 |
| Transport | 22 | 7 | 51 | 131 | 211 |
| Telecommunications | -- | -- | 1 | -- | 1 |
| Trade | 27 | 5 | 91 | 1,194 | 1,317 |
| Housing | -- | -- | -- | 9 | 9 |
| Other services | 1 | 1 | 6 | 1,070 | 1,078 |
| Agriculture | -- | -- | 99 | 49 | 148 |
| State farms | 50 | 23 | 140 | 39 | 252 |
| Others | -- | 2 | 26 | 287 | 315 |
| Total | 160 | 53 | 663 | 3,128 | 4,004 |

Source: Privatization Commission.

1.34 Judging by the evolution of their activities, privatization of small enterprises (red vouchers) and livestock has been largely successful. These covered small businesses, restaurants, factories, and retail outlets (see Table 1.4). Employees of companies scheduled for privatization were given first rights to form a coalition to acquire their firm. A potential buyer could obtain needed vouchers through the secondary market and supplement his bid with cash if required. Bids in excess of the assessed book value were often made for assets in the main cities, although the sum of all winning bids was well below the assessed value of the assets.

1.35 The privatization of large enterprises (blue vouchers) has not been very successful, largely because of the longer process involved and the prolonged negotiations that it entailed. These

Table 1.4: Privatized assets by sector
(in billions of Tugrik)

| | Small privatizations | Large privatizations | Total |
|-----------------------------------|-------------------------|-------------------------|--------------|
| Industry | 0.19 | 5.04 | 5.23 |
| Construction | 0.16 | 1.27 | 1.42 |
| Transport | 0.14 | 0.52 | 0.67 |
| Telecommunications | -- | 0.01 | 0.01 |
| Trade | 0.95 | 0.58 | 1.52 |
| Housing | -- | -- | -- |
| Other services | 0.30 | 0.3 | 0.33 |
| Agriculture | 1.85 | 4.09 | 5.94 |
| State farms | 0.02 | 1.25 | 1.26 |
| Others | 0.68 | 0.25 | 0.92 |
| Total | 4.30 | 13.03 | 17.33 |
| Source: Privatization Commission. | | | |

enterprises were mainly in the agricultural, construction, transportation, and trading sectors.

Privatization plans of firms needed to be approved by the Privatization

Commission, which valued the company's fixed assets, checked their balance sheets, and determined the shares to be issued.

Enterprises were then converted into joint stock companies and shares were made available for sale in exchange for blue vouchers at the Mongolian Stock Exchange.

1.36 Since secondary trading was not permitted for blue vouchers, the

ownership structure of large privatized companies is diffuse, leading to concerns about the effectiveness of corporate governance under the new system. Legal preparations are underway to permit the Stock Exchange to engage in the secondary trading of shares. (Privatization by vouchers is practically over so it is now irrelevant to permit secondary trading of blue vouchers.) The Securities Law, now approved, will govern such transactions and will establish a Securities Commission responsible for monitoring and regulating the market.

1.37 Various options are being considered for the privatization of the housing stock. These involve resolving first the question of property rights and toward this end draft legislation is scheduled to be put before Parliament by the end of the year. Regulation of the notarial profession as well as an efficient property registration office will also be necessary if the process is to proceed satisfactorily.

1.38 **Liberalizing external policies.** The transformation from a predominantly barter-based international trading system to a relatively open trade regime has not been an easy one. Under the earlier planned system, all trade was handled exclusively by one of seven state-owned foreign trade companies (FTCs). The Ministry of Trade and Industry would routinely issue state orders directing SOEs to earmark a share of their output for export. Most of these exports were channeled through Mongolimpex, the Government's largest FTC. In early 1993, the Government abolished state orders and disbanded most FTCs. But new FTCs have sprung up in ministries and aimak administrations to handle foreign procurements; it is important that the activities of these FTCs be restricted to government procurement only.

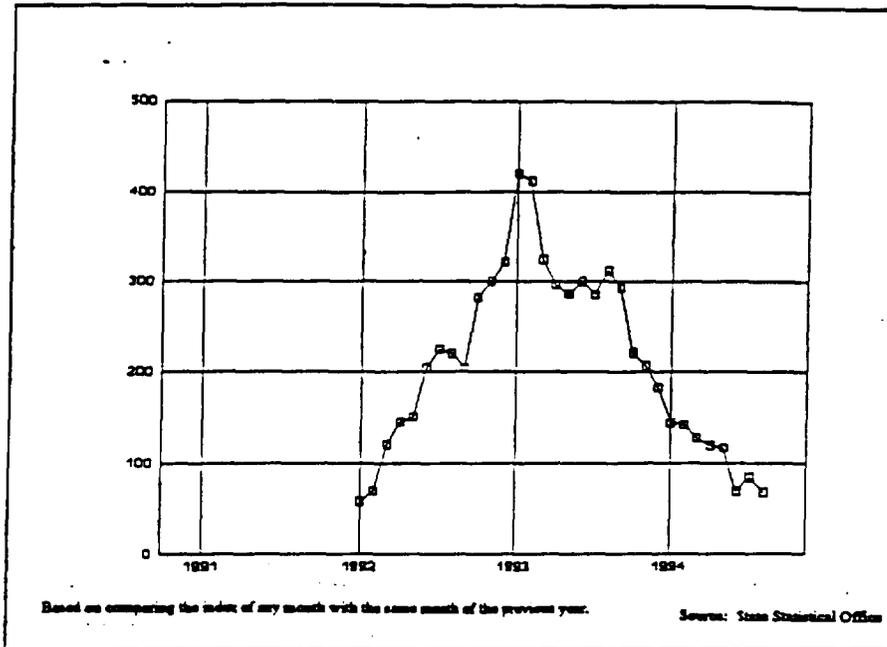
1.39 Significant progress has also been achieved in limiting export and import licensing. In late 1992, the list of product categories requiring export licenses was reduced to 13, of which the most important were wheat, meat, meat products, live animals, and wild animal products. Imports were similarly managed through a licensing procedure. But with exchange rate unification in May 1993 (see para. 1.40) import licensing was formally abolished and export licensing was retained for only meat, meat products, and live animals. These export licensing requirements were abolished in August, 1994. An export registration procedure, introduced nominally for statistical purposes, is now in place. As mentioned before (1.21), export taxes have been eliminated, import duties are low and uniform (15 percent) and there is only some implicit protection to tobacco and alcohol through differential excise taxes. The trade regimen is, therefore, quite liberal.

1.40 The exchange rate system had been liberalized gradually since 1990, but the maintenance, until 1992 of an overvalued official exchange rate, coupled with extensive restrictions in the foreign exchange market, had created pervasive distortions and required urgent action to unify and liberalize the exchange rate system. This was finally achieved in May 1993, when Mongolia adopted a floating and unified exchange rate system and the official exchange rate depreciated from Tug 150 to Tug 400 to the U.S. dollar. Only a few months before, on January 1, 1993, Mongolia had devalued its currency from Tug 40 to Tug 150 per U.S. dollar. Since May 1993, the nominal exchange rate has remained stable; the exchange rate is about Tug 420 per U.S. dollar at present. Therefore, the cumulative exchange rate depreciation has been substantially less than in the transition economies of the former Soviet Union. Central Bank interventions have been sporadic and do not explain the stability of the Tugrik (international reserves have been increasing). Mongolia's relatively high rate of inflation after May 1993 has meant that the real exchange rate has appreciated by about 50 percent since then. There is no evidence, however, that this appreciation is negatively affecting Mongolia's ability to compete since wages are still low, comparatively speaking.

Economic performance: recent developments

1.41 In recent months, the Government's tight monetary and fiscal policies appear at last to be having their desired effect. Inflation, which reached over 400 percent in January 1993, moderated considerably by August 1994 to about 68 percent per year (see Figure 1.2). The steadily declining rate of inflation since early 1993 was disturbed by a sharp rise in the consumer price index in July 1994. This recent spurt was driven largely by large jumps in the price index for food, transport and communication, and education and recreation, and were associated with the continuing price reforms in these sectors. In August 1994, the month-on-month rate of inflation turned negative, quieting fears that the economy was about to see another bout of high inflation. The deceleration in the annual rate of inflation that occurred during the first half of 1994 is expected to continue into the second half, though perhaps not as sharply, provided, of course, the Government retains its current stance on fiscal and monetary policies.

Figure 1.2: Declining trend in inflation
(in percent)



1.42 While some progress is being made in the fight against inflation, the response of the real sectors to the Government's comprehensive structural reforms has yet to fully materialize, reflecting deep-seated structural problems and the legacy of decades-long plan-based macroeconomic management. Real GDP declined four years in a row at an average 5.3% a year (see Table 1.5). Real investment declined most sharply at 24.2% a year, weakening the prospects of rapid recovery, and output in the industrial sector contracted by over a quarter.

1.43 But after the sharp cumulative contraction of 20% in real GDP in 1990-92, the growth rate of 2.5% for 1994, suggests that the worst of the adjustment may be over. Although the decline in 1993 was a relatively small 1.3%, real private consumption declined by a precipitous 17.8%, reversing almost all the gains made in the previous year and lowering the level of real private consumption per capita to a third below its level in 1989.⁵ More encouraging in 1993, however, was the surge in investment, as external aid (magnified by the marked depreciation of the Tug) boosted government resources and rejuvenated the public investment program. Unfortunately, data on private investment are unavailable, but all indications suggest that this has grown as well, especially in trade and services. The latest forecast of a 2.5% GDP growth rate in 1994 is based on evidence of a recovery in agriculture/livestock and continuing expansion in trade and services and increasing production of some minerals.

⁵ Consumption of state enterprises are considered private consumption in the national accounts.

1.44 **The agricultural sector in transition.** In aggregate, agricultural output declined in 1993, continuing a trend that had begun in 1989. Crop output, in particular, has been disappointing. Mongolians, traditionally are pastoralists, not crop farmers. Extreme temperatures, light rainfall, and an extremely thin topsoil depleted by wind erosion make crop production technically difficult.

Table 1.5: The anatomy of GDP growth
(in percent per year)

| | Period averages a/ | | Annual growth | |
|-----------------------------------|--------------------|----------|---------------|-------|
| | 1981-89 | 1989-93 | 1992 | 1993 |
| GDP | 6.5 | -5.3 | -7.6 | -1.3 |
| <u>By sector of origin</u> | | | | |
| Agriculture | 4.3 | -2.9 | -5.9 | -2.5 |
| Industry | 6.8 | -7.7 | -15.9 | -4.6 |
| Services | 7.1 | -4.6 | -3.4 | 0.9 |
| <u>By expenditure category</u> | | | | |
| Consumption | 9.0 | -7.5 | 7.6 | -11.9 |
| Government | .. | -7.1 | -22.8 | 9.0 |
| Private | .. | -7.6 | 21.0 | -17.8 |
| Investment | 2.6 | -24.2 | -62.9 | 59.9 |
| Fixed investment | 3.2 | -32.3 b/ | -26.2 | .. |
| Changes in stocks | -8.0 | .. | .. | .. |
| Exports | 8.2 | -10.6 | 11.0 | 7.8 |
| Imports | 6.9 | -30.5 | -17.3 | -5.9 |
| .. Not available | | | | |
| a/ Point-to-point growth rate. | | | | |
| b/ 1989-92. | | | | |
| Source: State Statistical Office. | | | | |

Double normal seeding rates are necessary due to low germination rates. The absence of technical extension advice, institutional reform, and adequate investment, means that crop production might continue to require operating subsidies explicitly through the budget or implicitly from the commercial banks in the form of subsidized loans, at least in the near term.

1.45 Introduced by the communist regime, crop cultivation was expanded from 260,000 hectares in 1960 to 837,000 hectares in 1989. About 200,000 hectares have been withdrawn from

cultivation since then as mechanical and chemical inputs became increasingly difficult and expensive to obtain. Despite this withdrawal of marginal lands from crop production, average land productivity has *fallen* since 1989. Privatization does not appear to have improved incentives, devolved decision making, or increased rewards to farmers. Workers on state farms are now shareholders of the enterprise. However, for privatization to be effective, agricultural units should be transferred to families and the enactment of the Land Law should proceed expeditiously.

1.46 Unlike in the crop sector, privatization has wrought a profound change in Mongolia's livestock sector. Decisions on production and marketing of animals have returned to individual owners. Herding families, not planners, decide herd size and composition, whether to purchase veterinary services, and from whom to sell to or buy.

1.47 It is too early to assess the impact of these changes on productivity and output in the livestock sector. So far, the size of the national herd has declined slightly from the peak achieved

in 1990, reflecting a steady decline in the survival rate of offspring since 1989. But one piece of evidence suggests that herders are indeed sensitive to market signals and it is only a matter of time before they respond to the new incentives being introduced: the species mix of herd has altered in line with relative price changes. With the increase in cashmere prices, herders appear to have substituted goats for other animals. The share of goats in the national herd has increased from 19 percent in 1989 to 24 percent in 1993.

1.48 **The industrial sector in crisis**. The industrial sector, composed mainly of large enterprises subsidized by low input prices, below-market interest rates, and in some cases, government grants, is experiencing severe adjustment problems under the new policy regime. Like most Soviet style economies, not only is Mongolia's share of manufacturing in GDP relatively high for a low income country, but the size of individual production units is relatively large. Almost every product manufactured in the country tends to be produced by one or two large enterprises. Skins and hides, for example, are processed in one pre-treatment plant and three tanneries (one each for sheep, goats, and large animals). The capacity of the sheep skin tannery is 4 million skins a year; tanneries elsewhere in the world tend to be smaller and geographically dispersed so they can cut production costs. Leather in Mongolia is mostly shipped to two leather garment factories and a huge shoe manufacturing plants. Similarly, a single factory is equipped to process virtually the entire cashmere output of the country. Partial privatization has not altered this concentration in production. On the contrary, the privatized sheepskin tannery has joined with the largest leather garment plant to form a vertically integrated firm.

Box 1.1: The garment industry: A fitting beginning

The ready-made garment industry shows how new industry can arise quickly with little government promotion in a policy environment supportive of private sector development. Mongolia has proved attractive to foreign direct investment in "cut and sew" operations because the country faces no quotas under the Multifibre Arrangement. The first large operation -- a Temojin Mench, with operations in Canada, the US, Hong Kong, China and the Philippines -- began production as a joint venture in Ulaanbaatar in November 1992. (Several smaller firms were established earlier.) Temojin Mench has established two plants and now employs 2,800. Its subcontracting arrangements with 40 Mongolian producers in various parts of the country reportedly employ another 5,000. Mongolian subcontractors for the most part originally were small units that have been guided in purchases of equipment and quality control by the foreign investor, which employs more than 50 expatriate technical experts in Mongolia, most of them from elsewhere in Asia. To put these numbers in perspective, employment in the garment sector in 1991 was 5,000 and total industrial employment was 106,000. Consistent with the reports of rapid expansion of the garment sector, \$2.1 million worth of textile equipment was imported in the first three quarters of 1994 (in contrast with \$300,000 worth of leather working machinery). A number of Hong Kong and Korean investors are interested in producing garments in Mongolia. Seventeen joint ventures have begun operation in the garment sector, more than in any other sector.

1.49 The relatively outmoded technology in many of these plants, their large inventories, and their high excess capacity makes them relatively uncompetitive in the world economy. Before the reforms, these firms depended on captive CMEA or local markets. Now their survival depends on their ability to adjust to new winds of competition and their capacity to raise the quality of output to international levels. Enterprises that depended on CMEA markets have been judged to be the most vulnerable to failure; they represent about 35 percent of industrial production and employ over 35,000 workers. They include flour mills, tanneries, leather goods manufacturers, cashmere producers, soap factories, and overcoat production units.

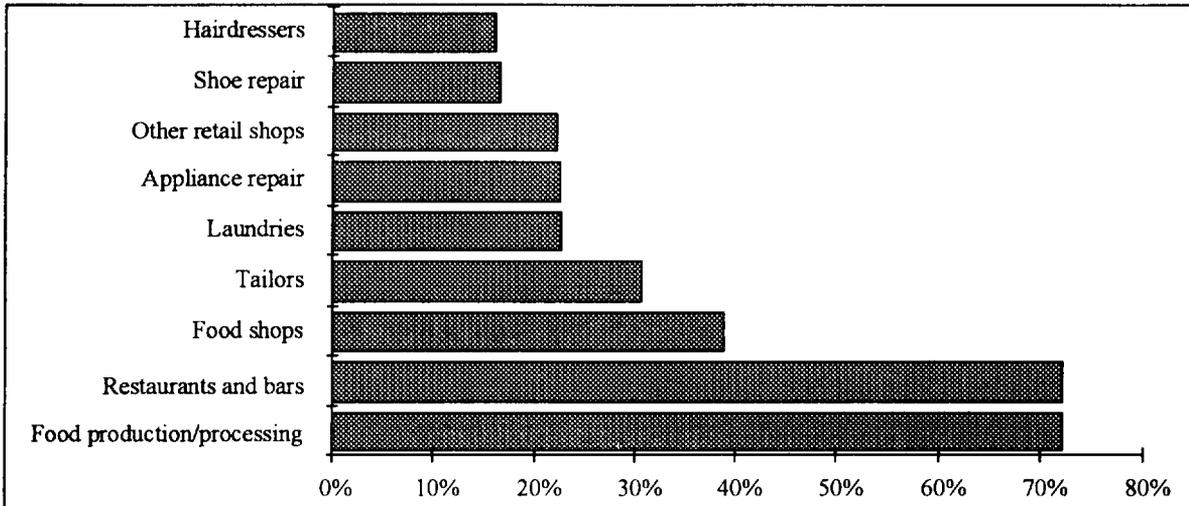
1.50 While the restructuring of the industrial sector will, of necessity, require the decline of some "old" industries, it will also herald the rise of some "new" ones. The relatively labor-intensive ready-made garment industry is an example of a subsector that is experiencing rapid growth (see Box 1.1). Similar possibilities exist in several other subsectors in which Mongolia has a comparative advantage. But their revival will have to await the rise of small scale producers that can compete effectively with the large firms that dominate the industrial landscape. Encouraging the rise of this new breed of entrepreneur and nurturing their development is a major challenge to Mongolia's policymakers.

1.51 In the mining sector, the largest enterprise in the country, Erdenet Copper Concern, increased its mining output by 11 percent in 1993, but declining copper concentrate in the ore meant that the value of production declined. Management problems, insufficient investment, and the deterioration of the existing capital stock afflicted output in the coal subsector. Coal production slipped from 8 million tonnes in 1990 to 5.6 million tonnes in 1993.

1.52 The country's power system is unable to meet demand, and the dilapidated state of the country's heat and power plants raises concerns about the possibility of accidents and the loss of core capacity. Partly as a result of lower coal production, but also because of recurring breakdowns in generating equipment, power generation declined by an alarming 25 percent between 1990 and 1993. Daily electricity blackouts are frequent in the cities of Ulaanbaatar and Darkhan, leading to loss of downstream production. Moreover, the power sector is in financial distress. Although electricity prices have been raised by over 200 percent in real terms, power plants are unable to pay the coal mines which, in turn, are unable to pay the railways, thus creating a vicious cycle of inter-enterprise arrears. Under such difficult conditions, the power companies cannot meet their operating expenditures without financial assistance from the Government. Large-scale financial support for the rehabilitation of the sector will further strain the Government's already difficult fiscal position.

1.53 **Expanding retail and wholesale trade.** Private sector trading was one part of the economy that appeared to grow strongly in 1993. Unfortunately, official statistics do not capture the growth in this sector as most of the activity is informal and no law requires compliance with data requests by the Statistical Office. Nevertheless, simple observation and casual empiricism lend strong support to the view that private trade is expanding from its modest levels of a few years ago.

Figure 1.3: New small businesses in Ulaanbaatar
(The proportion of shops in 1994 that had been opened in the previous year)



Source: Office of the Mayor of Ulaanbaatar

1.54 The underdevelopment of the retail and wholesale trading sector in Mongolia is unmistakable, as it is in other erstwhile communist states. Shops and restaurants are scarce. There are still some barriers to entry. Streets are kept empty of traders in some locations. More fundamentally, property rights are not yet well enough established to encourage new investors. Buildings cannot be privately owned, nor are the zoning laws in force. Some municipal authorities remain ambivalent toward private enterprise; although shops are sprouting in Ulaanbaatar, they are frowned on in Darkhan, the second largest town. Street vendors are looked upon unsympathetically by some local authorities.

1.55 Despite these obstacles, trading continues to flourish. Ulaanbaatar's huge Sunday market, which, despite its name, operates four days a week, is an example of the transformation taking place in the services sector. Again in Ulaanbaatar, over one-third of the retail shops operating in 1994 opened for business in the last year (see Figure 1.3). Seasonal tourism also appears to be growing rapidly. A number of small hotels and several restaurants were established in 1993 and early 1994.

1.56 **Looming dangers in the financial sector.** High inflation, large non-performing asset portfolios in commercial banks subsidized credits to public enterprises, and a liberal interest rate policy have led to a sharp rise in nominal and real interest rates paid for by non-subsidized enterprises. Time deposit rates on three to five year deposits that were offering 32 percent in 1991 are now between 131 percent and 151 percent (Table 1.6). Private firms that were required to pay an annual rate of 72 percent on a short term loan are now required to pay 196 percent. Given the sharp decline in inflation in recent months, these nominal interest rates imply real interest rates in excess of 100 percent a year.

1.57 Since virtually all medium and large firms are highly leveraged, such high real interest rates are almost certainly making the financial position of many firms untenable. These conditions usually lead to a rising tide of defaults and the non-performing asset portfolio of banks in Mongolia (20-30 percent of the total portfolio) is probably rising as a share of total assets. The larger the size of the non-performing asset portfolio of the banks, the larger is likely to be the spread between the average lending rate set by banks and their average cost of funds, especially in a banking sector where interest rates are set freely. And rising real lending rates, in turn, increase the likelihood of further default. The Mongolian authorities are working to resolve the issue of non-performing

Table 1.6: Sharply rising interest rates
(annual, in percent)

| | 1991 | | 1992 | | | | 1993 | 1994 |
|--------------------------|--------|--------|--------|---------|---------|---------|---------|---------|
| | 09/31 | 12/31 | 03/31 | 06/30 | 09/30 | 12/31 | 01/31 | 02/28 |
| Deposit rates | | | | | | | | |
| Current accounts | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Savings deposits | 4-15 | 10-52 | 10-64 | 24-125 | 24-125 | 24-100 | 24-100 | 24-100 |
| Time deposits | | | | | | | | |
| Domestic currency | | | | | | | | |
| -12 months | -- | -- | -- | -- | -- | -- | 70-153 | 70-153 |
| 1-3 years | -- | -- | -- | -- | 90-152 | 70-153 | -- | -- |
| 3-5 years | 28 | 50-70 | 54-84 | 60-152 | 125-151 | 125-151 | -- | -- |
| More than 5 years | 32 | 50-70 | 60-90 | 60-152 | -- | -- | -- | -- |
| Foreign currency | | | | | | | | |
| 1-3 years | 10 | 40 | 48-60 | 48-70 | 15-70 | 10-72 | 10-72 | 10-72 |
| 3-5 years | 12 | 50 | 48-60 | 48-70 | 15-70 | -- | -- | -- |
| More than 5 years | 15 | 50 | 48-60 | 48-70 | 15-70 | -- | -- | -- |
| Loan rates | | | | | | | | |
| Mongolbank rate | 21-100 | 24-120 | 30-120 | 120-300 | 120-300 | 120-300 | 180-264 | 180-264 |
| Commercial loans | | | | | | | | |
| State enterprises | 60 | 100 | 133 | 159 | 197 | 182 | 183 | 183 |
| Private businesses | 72 | 127 | 169 | 217 | 228 | 215 | 196 | 196 |
| Consumer | 100 | 147 | 207 | 225 | 214 | 223 | 221 | 221 |
| Source: Bank of Mongolia | | | | | | | | |

loans and to improve the supervisory capacity of the Bank of Mongolia so this problem does not recur in the future.

1.58 **Employment and wages.** Even though the contraction in GDP was far less severe in 1993 than in the previous two years, employment increased in 1991-92 but then declined by 4.1 percent in 1993. The unemployment rate is about 8.5 percent (72,000 out of a labor force of about 850,000), up from 6.3 percent in 1992. According to the authorities, about 80 percent of the registered unemployed are school leavers that have entered the labor force. Virtually every sector was affected, but none so much as industry, which accounts for 17 percent of total employment. The actual growth in agricultural employment is difficult to measure as the definition of employment in the agricultural sector was changed recently by the Statistical Office. Nevertheless, employment in crop production has declined along with the decline in crop area, but there is some evidence of increased employment in the livestock sector as privatization has attracted new entrants. Some growth in employment has occurred in finance and administration, but this has had little impact on the overall unemployment situation. The retail and wholesale trading sector has also probably absorbed labor although the official statistics, which traditionally tend to underreport service sector employment, do not lend support to this view.

1.59 The trend in real wages has reflected the general weakness in the economy and the difficulties faced by the industrial sector. Real wages dropped by 50 percent between 1990 and 1992, and household survey data suggest that a further decline of 33 percent occurred in 1993. This decline may be overestimated since prices in the pre-reform era did not reflect the scarcity of goods and services as accurately as the present price system tends to do. Nevertheless, the decline in real wages has been substantial and explains, in large part, the large drop in private consumption since the beginning of the reform program. The biggest wage reductions have occurred in the industrial sector, the largest gains in services. In the agricultural sector, wages on farms engaged in crop production have declined, but the incomes of self-employed herders of livestock have probably increased.

1.60 **International trade, financial flows, and external debt.** Mongolia's external current account deficit has declined continuously over the last four years to only \$38 million in 1993, equivalent to 6 percent of GDP (see Table 1.7). But this reduction in the current account deficit was not the result of improved export performance; indeed, exports had more than halved between 1989 and 1993. Rather, it was the consequence of an enormous cutback in imports, which by 1993 had been lowered to a mere one-fifth their level in 1989. This shrinkage in Mongolia's import bill was dictated by the country's financial situation following the withdrawal of Soviet aid (included under "other long-term inflows" in Table 1.7). In 1989, Mongolia imported over \$2 billion worth of goods and services (mostly from the former Soviet Union) and ran a current account deficit of \$1.2 billion which was financed by external aid of roughly the same amount.⁶ Only a fraction of this sudden loss in foreign exchange resource availability was made up by a startup of aid flows from bilateral donors and some commercial borrowing.

1.62 In 1993, exports gained marginally over their 1992 levels and their composition continued to change. Copper exports, which account for 40 percent of total export revenues, increased to 394,000 tonnes, about 14 percent above the level exported in 1992, and for the first time, higher

⁶ The real dollar value of imports from the CMEA has been exaggerated by the overvaluation of CMEA currencies and the introduction, in the Soviet Union, of exchange rate coefficients which significantly increased the price of Soviet exports to Mongolia.

export levels had been achieved than before the reforms began. Apart from copper, however, mineral exports continued to be disappointing, with molybdenum exports falling by 2.3 percent in real terms, flour spar exports more than halving from 166,400 tonnes to 79,500 tonnes, and fluorspar concentrate shrinking from 97 thousand tonnes to 77 thousand tonnes. The latter has increased

Table 1.7: Summary balance of payments
(in US\$ millions)

| | 1981 | 1989 | 1990 | 1991 | 1992 | 1993 ⁷ |
|--|-------------|--------------|-------------|-------------|------------|-------------------|
| Exports | 476 | 832 | 493 | 370 | 391 | 385 |
| Merchandise (FOB) | 438 | 796 | 445 | 347 | 356 | 360 |
| Non-factor services | 38 | 36 | 48 | 24 | 35 | 25 |
| Imports | 1273 | 2016 | 1101 | 528 | 433 | 402 |
| Merchandise | 1240 | 1912 | 1024 | 501 | 400 | 361 |
| Non-factor services | 33 | 104 | 77 | 27 | 33 | 41 |
| Resource balance | -796 | -1184 | -608 | -158 | -43 | -17 |
| Net factor income | -11 | -49 | -44 | -3 | -27 | -21 |
| Net current transfers | 0 | 0 | 0 | 0 | -3 | 0 |
| <u>Current account balance</u> | <u>-807</u> | <u>-1233</u> | <u>-651</u> | <u>-161</u> | <u>-73</u> | <u>-38</u> |
| Official grants | 0 | 4 | 7 | 44 | 41 | 42 |
| Medium and long term borrowing (net) | 0 | 0 | 16 | 142 | 123 | 54 |
| Other long term inflows (net) | 807 | 1228 | 501 | -12 | -37 | 0 |
| Foreign direct investment | 0 | 0 | 0 | 0 | 2 | 3 |
| Other items (net) | 0 | 18 | 74 | -106 | -70 | -50 |
| Change in net reserves | 0 | -18 | 53 | 92 | 13 | -12 |
| Data prior to 1991 are converted to US\$ using IBEC official rates and are therefore not comparable to current data. | | | | | | |
| .. Not available | | | | | | |
| a/ Including gold; end of period. | | | | | | |
| Source: IMF | | | | | | |

1.63 The most dramatic illustration of how the reform program has *increased* Mongolia's export volumes is the sharp expansion in the export of skins and leather goods. Horse skins, in particular, shot up from 10.5 thousand pieces in 1992 to 154.5 thousand in 1993. Exports of sheep and goat skins trebled in volume over the same period.

1.64 The decline in imports during 1993 reflected the impact of exchange rate depreciation on the relative price of importables, lower incomes and production, and lower capital goods imports. But even here, the first glimmer of the effects of liberalization was visible. There was a significant increase in imports of cars and a recovery in the imports of consumer durables such as sewing machines and television sets. In addition, increases in public expenditures on infrastructure projects were reflected in a sudden jump in the number of tractors and excavators imported during 1993.

1.65 The Mongolian economy is highly vulnerable to external shocks because of the relatively large size and particular composition of its foreign trade. Exports and imports accounted for 62 percent and 65 percent of GDP respectively in 1993. The country's export composition is limited, with copper being of special importance, accounting for two-fifths of total export earnings. On the import side, petroleum products account for about one-fourth of the total import bill. Because of its higher dependence on copper and oil, Mongolia's trade balance tends to be volatile.

1.66 Although Mongolia faces considerable risk from the lack of diversification in its exports and imports, it has been able to diversify the *direction* of its trade significantly. The country's economic disengagement from the former Soviet Union and the implementation of economic

Table 1.8: Shifting trade patterns
(percent of total merchandise exports)

| | 1985 | 1990 | 1993 |
|-------------------------|-------------|-------------|-------------|
| CMEA | <u>95.5</u> | <u>94.4</u> | <u>54.2</u> |
| Former Soviet Union | 77.0 | 78.3 | 53.0 |
| Eastern Europe | 17.7 | 14.9 | 1.0 |
| Other | 0.8 | 1.2 | 0.2 |
| Non CMEA | <u>4.5</u> | <u>5.6</u> | <u>45.8</u> |
| China | 0.4 | 1.7 | 30.9 |
| East Asia (excl. China) | 1.1 | 1.1 | 5.2 |
| Western Europe | 2.6 | 2.1 | 6.5 |
| Other | 0.4 | 0.7 | 3.2 |

Source: State Statistical Office

reforms are helping reshape the economy in line with its international comparative advantage. In 1985, almost all of Mongolia's trade was conducted with the CMEA bloc. Today, the share of the former CMEA countries is about half (Table 1.8). Mongolia continues to sell most of its copper to Russia and buy most of its petroleum from that country. Until recently this was conducted as a barter arrangement between the two countries negotiated on the basis of prevailing international prices; in April 1994, the two countries signed an agreement stating that all future trade will be conducted on a convertible currency basis. While Mongolia's trade with the former

Soviet Union has languished, trade with China has boomed. As recently as 1990, exports to China accounted for less than 2 percent of Mongolia's total exports. Now, this share is closer to a third. The bulk of these exports are cashmere, wool, and skins. In addition, Mongolia benefits from overland trade between China and Russia by providing Russian raw materials to China and Chinese consumer goods to Russia.

1.67 On the capital account, Mongolia has been able to acquire successfully a pipeline of external aid from bilateral and multilateral donors to support its transition to a market oriented economy. This has helped to finance the rehabilitation of infrastructure, considered crucial to the recovery of the Mongolian economy, as well as technical assistance for training, institutional development, policy design, administrative support, and project development. Disbursements of concessional loans and grants reached \$150 million in 1993, of which disbursements for technical assistance projects amount to over \$10 million.

1.68 Foreign direct investment inflows into Mongolia have been recent and small, but every indication points to their growth. Between 1991 and April 1994, the Government approved 333 foreign direct investment projects amounting to some \$40 million. The largest foreign investors are Russian, who submitted 137 project proposals for \$16.5 million, followed by the Chinese with 106 project proposals for \$8.2 million. The proposed areas for investment include services, construction, agro-processing, and various small scale manufacturing activities. While some of these are large scale government-to-government investments, the bulk are small private partnership arrangements with an average value of \$120,000. Joint ventures to explore for oil have been established, and a Mongolian-American-Russian joint venture for the exploration and processing of uranium is under negotiation.

1.69 Mongolia's external debt in convertible currencies stood at US\$386 million at the end of 1993, equivalent to 100 percent of its exports of goods and non-factor services.⁸ About half of this debt is on concessional terms and only 12 percent is variable interest rate debt. All external arrears were eliminated by end-June 1994. Agreement has been reached in principle between Mongolia and the former Soviet Union to postpone, until the year 2000 at least, long-term debt-service obligations falling due through 1995. Modalities for valuation and future settlements of these debt service obligations are under negotiation. Progress has also been made in settling outstanding balances owed to former CMEA members, notably Hungary, and discussions are underway with Germany, Poland, and the Czech Republic. The debt service-ratio (the ratio of debt service to exports of goods and services) stands at a relatively comfortable 12 percent; nevertheless, the volatility of Mongolia's export revenues and the fragility of its export performance and economic recovery suggests that the Government needs to exercise considerable caution in its external borrowing strategy and that donors need to continue extending grants as well as credit on concessional terms.

The future agenda

1.70 Despite the progress the Mongolian economy has achieved since the initiation of the Government's reform program, many challenges remain. Although inflation appears to be decreasing, the authorities will need to persevere with tight monetary and fiscal policies to lower it yet further to acceptable levels. Similarly, reforms will need to be intensified to raise domestic investment and savings, stimulate growth, support structural change, and improve export earnings. Furthermore, these reforms will need to be accompanied by further legal and institutional changes to strengthen the foundations for the ongoing task of building a market-based economy.

1.71 To ensure continued macroeconomic stability and to generate adequate resources to finance public investments, a principal task of fiscal policy would be to achieve an annual increment of government savings equivalent to no less than 1 percentage point of GDP each year. This is a difficult task, and much will depend on the intensification of tax reforms and additional revenue mobilization efforts of the Government. To this end, the Government will need to eliminate import

duty exemptions, which persist despite earlier efforts on the part of the Government to eliminate them. Steps will also need to be taken to extend the sales tax to services and further rationalization of the structure of direct taxes will make the system more equitable and efficient. To simplify administration and improve tax compliance, the number of marginal (personal) income tax rates could be reduced to four and set at levels that would make the changes revenue-neutral. In the same vein, corporate tax rates should be unified. Finally, the Government needs to improve its tax administration capacity, so that the nascent private sector, from the outset, is part of the growing tax base.

1.72 The limited availability of domestic and external resources will require the Government to sharply focus its efforts toward defining priorities for public expenditures and develop systems to ensure these are identified and met. This is central to the Government's objective of restoring economic growth. In addition to keeping a close eye on the *level* of public expenditures (both current and capital), the Government will need to ensure that the *allocation* of the public expenditure program acts as a critical complement to the range of structural reforms that are being implemented to promote the private sector. This subject is examined further in the second chapter of this report.

1.73 A prudent fiscal policy will help in the implementation of a tight monetary policy geared to reducing inflation and strengthening the external position. The Central Bank needs to limit credit to the Government and public enterprises to ensure that adequate resources reach the private sector while remaining within prudent overall targets for the expansion of the money supply. The development of indirect monetary management instruments (especially the introduction of central bank bills) will improve the Central Bank's capacity to implement its financial program, although it is likely that other policy instruments, notably reserve requirements, will continue to be used as well in the future. The elimination of credit ceilings should proceed this year as planned. However, the impact of such measures on monetary expansion should be fully examined since credit may expand because the banking system has excess reserves.

1.74 The authorities will need to be especially alert to developments in the banking sector. The recent sharp increase in real interest rates that followed the decline in inflation is likely to place an intolerable financial burden on borrowers from the banking system, which in turn could further worsen the already troubled portfolio of banks. In order to reduce real interest rates, two sets of actions need to be taken. First, the Government needs to move ahead expeditiously to assess the extent of non-performing assets in the banking system, finalize an action plan to cover loan provisioning and the recapitalization of banks, and improve supervisory capacity in the Central Bank to prevent a re-emergence of similar problems in the future. Second, subsidized credit by the Central Bank to state enterprises should be reduced sharply.

1.75 The thrust of future reforms in international trade and exchange rate policies will be to consolidate recent gains and guard against any policy reversals. Steps could be taken to broaden the interbank market for foreign exchange. The Government also needs to rescind the ban on raw cashmere exports; the ban, introduced to support the development of the cashmere processing industry, tilts incentives against raw cashmere production in which Mongolia has such pronounced international comparative advantage. This restriction affects about 5-10 percent of total exports and is an important determinant of growth potential. In addition, the technical analysis of bans indicates that producer prices will be reduced, thereby negatively affecting over 200,000 herders⁹. Concerning export licensing requirements for meat and meat products, the government has stated its intention to remove them soon.

1.76 Finally, special attention to vulnerable groups affected by the economic adjustments needs to be paid. Emphasis will need to be given to the design of affordable and targeted measures that alleviate hardship and suffering among the poor and vulnerable groups in society. For such programs to be successful, there needs to be a clear understanding of the pattern of poverty in the country and means by which the poor can be made more productive on a sustainable basis. This is of central relevance to the sustainability of Mongolia's adjustment program and is dealt with at some length in Chapter 3.

2: SETTING PRIORITIES IN PUBLIC EXPENDITURES

Introduction

2.1 The previous chapter noted the central importance of public finance policy to the restoration and maintenance of stability and the resumption of economic growth. It argued that a prudent fiscal policy is essential in the Government's fight against inflation, in the implementation of a tight monetary policy, and in the support for private sector development. This chapter extends this reasoning further. It suggests that continuing economic difficulties at home and limited external support from official bilateral and multilateral donors will require the Government to husband its resources carefully, cut back further on distorting subsidies, and allocate current and capital expenditures to high priority areas such as energy, transport, telecommunications, education, and health. In allocating government expenditures on both the current and capital accounts of the budget, the Government will need to set up systems that consider the economic and social returns of all expenditures, including their support for the reform program, their impact on the poor, and their environmental consequences.

2.2 The short-term outlook for budgetary resources indicates that resource availability for public investments will peak in 1994 and begin to decline thereafter (see Table 2.1). Total revenues were the equivalent of 30 percent of GDP in 1992 and 1993. They are projected to remain at about the same level until 1996, perhaps slightly lower (as percentage of GDP)¹⁰. It is essential that government savings increase to ensure the adequacy of local resources to underpin the public investment program. The Government's program envisages government savings to rise by at least 1 percentage point of GDP a year to reach 5 percent of GDP by 1996. To achieve these programmed targets, the Government will need to keep tight control over its recurrent expenditures and make hard choices when confronted by tradeoffs between different priorities. Many of the decisions that the Government will be expected to make are almost certainly going to be politically difficult and will test the Government's commitment to the reform program and to its objective of building a market-based economy.

Managing cutbacks in current expenditures

2.3 The Government has already made large strides in cutting back current expenditures. Just four years ago, in 1990, current expenditures were equivalent to almost 52 percent of GDP; by 1993, this had almost halved to 28 percent. The bulk of the decline came from cutbacks in the wage and salary bill, and in lower subsidies and transfer payments (see Chapter 1). Sizable cuts have been made in current expenditures in 1994. The level of current expenditures still leaves some room for reductions (as percentage of GDP).

2.4 Perhaps the greatest potential for further efficiency gains on the budgetary current account can be acquired by lowering the wage and salary bill through a further reduction in the size of the

Table 2.1: Implications of constraints in public finance resources
(as percent of GDP)

| | Actual | Estimated | Projected | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 |
| <u>Total revenues, of which</u> | <u>29.9</u> | <u>30.2</u> | <u>28.0</u> | <u>28.7</u> | <u>29.4</u> |
| <u>Current revenues</u> | 29.9 | 30.2 | 26.4 | 27.1 | 27.8 |
| <u>Total expenditures</u> | <u>42.4</u> | <u>47.1</u> | <u>47.3</u> | <u>45.3</u> | <u>43.3</u> |
| <u>Current expenditures</u> | 31.1 | 28.3 | 23.5 | 23.2 | 22.9 |
| Wages and salaries | 6.7 | 4.7 | 5.5 | .. | .. |
| Purchases of goods & services | 12.8 | 12.9 | 9.6 | .. | .. |
| Subsidies to public enterprises | 3.7 | 2.1 | 1.3 | .. | .. |
| Transfers | 6.3 | 5.1 | 3.7 | .. | .. |
| Interest payments | 0.6 | 1.1 | 1.4 | .. | .. |
| Other | 1.0 | 2.4 | 2.0 | .. | .. |
| <u>Capital expenditures and net lending¹¹</u> | 11.6 | 18.8 | 23.8 | 22.1 | 20.4 |
| Capital expenditures | 7.4 | 13.5 | 16.1 | 15.1 | 15.6 |
| Net lending | 4.2 | 5.3 | 7.7 | 7.0 | 4.8 |
| <u>Government savings</u> | <u>-1.1</u> | <u>1.9</u> | <u>2.9</u> | <u>3.9</u> | <u>4.9</u> |
| <u>Overall balance</u> | <u>-12.7</u> | <u>-17.0</u> | <u>-19.3</u> | <u>-16.6</u> | <u>-13.9</u> |
| Financing | 12.7 | 17.0 | 19.3 | 16.6 | 13.9 |
| Foreign | 11.4 | 17.9 | 22.3 | 18.7 | 15.5 |
| Domestic | 1.4 | -0.9 | -3.0 | -2.1 | -1.6 |

Source: IMF and World Bank staff.

civil service. This will prove difficult because several cuts have already been made in the number of civil service employees, especially from the Ministry of Education and Health, and the wage bill has more than halved as a share of GDP from 9.8 percent in 1991 to 4.7 percent in 1993. Salaries and wages in the public sector declined by almost 50 percent in real terms in 1992 and by over 20 percent in 1993. The public sector now finds itself in the difficult position of losing qualified and competent personnel to the private sector which is able to provide more attractive compensation for its employees. A recent study of the civil service found that government servants do not receive more subsidies than private sector employees.

2.5 Some estimates, however, suggest that the Government remains overstaffed by between 15 percent and 20 percent of its total size, or about 17,000 to 24,000. Further installments of civil service wage increases should remain dependent on progress in shedding redundant civil servants and merging government departments. Existing ministries and departments need to be restructured, with some being expanded and others downsized. As further policy reforms are implemented, new opportunities will become available to rationalize civil service manpower in accordance with the need of Government to withdraw from interventions in some parts of the economy and to increase its involvement in others. This change in the skills mix of the civil service presents an additional challenge to the Government in its Civil Service restructuring program. For example, the manpower levels used in controlling the internal distribution of goods and services are increasingly likely to become less relevant to the efficient functioning of the economy, whereas the need for additional Central Bank supervisors responsible for implementing prudential regulations will become more important.

2.6 The next area where the Government can economize on current expenditures is through the additional reduction of subsidies and transfers. Here again, the Government will be building on gains achieved over the past few years. Subsidies (including transfers) have already been slashed from more than 21 percent of GDP in 1990 to 7.3 percent in 1993. Virtually no sector was spared. Achieving further reductions will not be easy. Most of the remaining budgetary subsidies are to support government interventions aimed at poverty alleviation, such as subsidized food for the destitute. Here, the Government should continually explore better and more efficient ways of reaching the poor so that more can be accomplished with fewer resources (see Chapter 3). In addition, there is some room for lowering subsidies to public services. For example, prices for rural electricity may need to be raised to partly meet the targeted reduction in subsidies. And though the Government raised urban bus fares by 200 percent in mid-1994, urban transport subsidies continue to be excessive and should be steadily lowered in real terms. Finally, the Government provides substantial hidden subsidies through controlled rents on public housing. These subsidies need also to be removed gradually, paving the way for the privatization of the housing sector.

2.7 Short of additional reductions in real pensions, there appear few possibilities for lowering the deficit in the social security system. Social security expenditures are an important component of current expenditures (listed in Table 2.1 as “transfers”), amounting to about 5 percent of GDP in 1993. Since social security taxes are about 2 percent of GDP, the deficit in the social security system alone is about 3 percent of GDP. The social security system provides regular retirement benefits, disability payments, and survivor pensions to widows and orphans, as well as sick leave, maternity leave, child care, and unemployment benefits.

2.8 The Government could explore two ways to lower the deficit in the social security system. The first is to improve collections of social security payments. The number of workers for each beneficiary is about 2.5. But the number of contributors to the social security system is much lower than this ratio indicates. Many workers, almost 300,000 of them, are nomadic herders who, for administrative reasons, do not pay social security taxes. But even if they did, the social security tax rate of 13.5 percent would be inadequate to cover all the liabilities of the system. So the second way to reduce the deficit in the social security system would be to lower the system's liabilities. One study finds that for the system to be fully self-financing at the prevailing contribution rate, pension payments to retired workers should be 26 percent of the average wage, compared to the current entitlement of about 60 percent. Lowering entitlements to 26 percent of

the average wage is clearly not an option in the short term, but some benefits can be trimmed, for example by reducing some of the generous early retirement benefits, a measure already taken by the Government. In the meantime, the budget will have to absorb most of the deficit in the social security system, at least until private alternatives develop.

Priorities in public investment

2.9 The level and allocation of the public investment program will play a crucial role in the recovery and future growth of the economy. Constraining the *level* of public investment is important because (with a given level of foreign aid disbursements) it permits a net *repayment* of domestic resources from the Government to the banking system (see Table 2.1) and allows a faster expansion of credit to the private sector without breaching monetary targets set by the Government. Within this overall ceiling for public investment, the *allocation* of resources across and within sectors is important because it affects the growth prospects of the economy as well as the effects of the economic transition on the poor and the destitute.

2.10 Financing of the 1994-97 public investment program has been, by and large, identified (see Tables 2.1 and 2.2). Ensuring that these resources are indeed forthcoming will require sustained effort. Increasing amounts of local financing will need to be raised from the budget and from resources generated by enterprises. Budgetary savings accounted for 2.0 percent of GDP in 1993 but will need to increase 5 percent of GDP by 1996. The finances of public enterprises are expected to improve when tariffs are adjusted in certain sectors (railway, urban transport, coal mining and electricity production); these tariff adjustments are part of an overall strategy to recover the cost of operations and maintenance, and in some cases price output at its long run marginal cost. In airport development and telecommunications, tariff policies will seek to give the enterprises concerned the capacity to service loans contracted for capital investment.

2.11 Mongolia's external assistance requirements to finance its investments requirements will continue to be substantial. The Government of Mongolia is currently implementing about 40 projects with a value of almost US\$400 million. 20 additional projects, valued at US\$370 million are under preparation. The country will require additional commitments in the order of US\$300 million during the next two years to finance new projects included in the public investment program. Projected net external financing for 1994-97 amounts to over \$500 million. Therefore, the role of the international community in assisting Mongolia's efforts during the rest of this century will be crucial.

Table 2.2: Public investment program, 1994-97

| | 1994 | 1995 | 1996 | 1997 |
|---|--------------------------------|---------------------|---------------------|---------------------|
| | ------(as percent of GDP)----- | | | |
| <u>Resource availability:</u> | <u>23.8</u> | <u>22.1</u> | <u>20.4</u> | <u>21.0</u> |
| Government savings | 2.9 | 3.9 | 4.9 | 6.0 |
| Foreign financing | 22.3 | 18.7 | 15.5 | 15.0 |
| Other domestic financing <u>b/</u> | -1.4 | -0.5 | -0.0 | 0.0 |
| | ------(in US\$ millions)----- | | | |
| <u>Resource use</u> | <u>140.5</u> | <u>157.0</u> | <u>155.0</u> | <u>173.2</u> |
| Directly productive projects <u>a/</u> | 33.8 | 20.6 | 7.6 | 24.0 |
| Energy | 45.2 | 39.7 | 50.0 | 49.3 |
| Transport | 43.9 | 65.9 | 60.8 | 70.0 |
| Telecommunications | 0.0 | 16.4 | 29.2 | 22.6 |
| Other | 17.6 | 14.4 | 7.4 | 7.3 |
| <p><u>a/</u> Investment in manufacturing, agriculture, on-lending to the private sector.</p> <p><u>b/</u> Includes borrowing by the public sector and internal savings of state-owned enterprises.</p> <p>Source: World Bank staff estimates based on information from Government and donors.</p> | | | | |

2.12 On the basis of these projections on resource availability, the aggregate public investment program for 1994-97 considered feasible and appropriate for Mongolia totals \$625 million (see Table 2.2). Over 40 percent of this is for rehabilitation (replacing worn-out assets) rather than building new capacity. These rehabilitation projects tend to yield high rate of returns, but in the outer years, as the existing capital stock is restored to its original productivity, rehabilitation projects will be replaced gradually by investments in new capacity.

2.13 Relative to GDP, the public investment program is expected to hover around 20 percent between 1994 and 1997. This amount includes investment in the core public enterprises and is expected to decrease as the infrastructure of Mongolia is gradually revitalized. In addition, increasing amounts of private investment (domestic and foreign) amounting to 5-10 percent of GDP could be reasonably anticipated if inflation declines, the regulatory framework governing investments is overhauled, and the government's commitment to further reforms remains unwavering. In aggregate, therefore, total investment (public and private) could reach 30 percent of GDP. Such levels, although high relative to Mongolia's recent experience, are consistent with Mongolia's performance in the 1980's and similar to the performance of many of its Asian neighbors. With the right market signals (for private investments) and the right strategy (for public finance), attaining these levels of investment is both feasible and necessary if Mongolia is to emerge from its current crisis and lay the foundations for sustainable growth in the future. Private investments should grow steadily if the economic reforms continue. However, the need for large public investments in infrastructure over the medium term is a precondition for economic growth.

2.14 The 1994-97 public investment program needs to be viewed as indicative rather than as a program based on firm assessments of costs, needs and available finance. Much rests on the availability of domestic resources which, in turn, will depend on the trajectory of international prices (especially copper) and the pace of economic recovery. Implementation of the program will need to be cognizant of the possibility of sudden resource shortfalls. Expenditure cutbacks should be managed in an orderly manner according to a pre-determined set of priorities. The public investment program is indicative also because a number of master plans and development programs have yet to be completed. It is imperative that projects enter the public investment program only after they are shown to be consistent with the broad strategic thrust in the relevant sector, have a demonstrated high rate of return, and are reviewed for their environmental effects. Clear sector strategies and well-prepared programs exist for a number of sectors (notably telecommunications, airport development, and railway rehabilitation). But similar preparation is not apparent in other sectors (particularly in energy, coal mining and road construction). It is important that preparation of strategies and projects are accelerated for these sectors so that the implementation of the public investment program is not delayed and expenditure allocations maintain an appropriate balance between sectors.

2.15 The inter-sectoral allocation of resources in the public investment program is governed by the need to restore critical physical infrastructure and improve the productivity of existing and future investments. The program therefore emphasizes investment in power rehabilitation, transport improvement, and telecommunications. Over 70 percent of resources have been allocated to these three sectors. Given the nature of these projected expenditures, the bulk of the public investment program is to be channeled through existing public enterprises (such as Mongolian Railways, Central Electricity System, Mongolian Telecommunications Company).

2.16 Few projects are planned in manufacturing, agriculture, finance, or trade where the policy of the Government calls for a growing role for the private sector and a gradual withdrawal of the public sector. But the Government is conducting several reviews with external assistance to identify strategies for crop development, livestock, and the financial sector. In the industrial sector, aside from the completion of ongoing projects, public involvement is expected to be very limited. Here, the private sector will be encouraged by onlending resources through the financial sector using funds provided by external donors. Similarly, any recapitalization of the banking sector will be done with the primary aim of enhancing credit availability for private activities.

2.17 The Government's strategy in the social sectors is to curtail public investments initially because of previous overinvestments in social infrastructure. There is considerable potential for increasing the delivery of social services by existing assets in these sectors more efficiently (see Box 2.1). Construction projects in these sectors with dubious rationale have been suspended and there is a long list of other buildings, including partially built ones, which are being offered for sale to the private sector. At the same time, emphasis will be given to expenditures for poverty alleviation programs. These are described in greater detail in Chapter 3.

Sectoral investment programs¹²

2.18 **Power Generation.** The public investment program in the energy sector will need to focus on overcoming bottlenecks in electricity generation and transmission. Insufficient maintenance, the scarcity of spare parts, and inadequate supply and poor quality of coal delivered to the power plants has meant that electricity generating equipment -- boilers, generators, conveyors, coal pulverizers, ash removal systems -- have been run down and now operate at well below their designed efficiency. Furthermore, the technology used in the boilers is inappropriate for the quality of coal available in Mongolia. Inadequate drying techniques in the mines leads to a high level of water content in the coal used by the power plants; this also reduces the calorific content of the coal. The high rock content of untreated coal accelerates the deterioration of equipment in power plants. It also requires power plants to use their own crushing equipment which increases the quantity of coal dust and raises the chances of explosions. In addition, technical problems have arisen due to obsolescent equipment in all the power plants. For instance, the co-generation plant for district heating is inefficient, resulting in high levels of heating loss in the distribution system. Similarly, Power Plant No. 3 in Ulaanbataar is old and will probably need to be replaced within five to six years.

2.19 The two largest coal mines are beset with severe operational difficulties that have lowered output. The main problem stems from the use of an obsolete rail haulage system to remove the coal overburden. The availability of good coal for extraction has consequently been reduced to dangerously low levels. Another technical problem is a shortage of coal handling capacity at the mines. As a result, a large share of production by-passes treatment facilities and arrives untreated and uncrushed at the power plants. This has ramifications through the entire energy chain, increasing transport costs, damaging boilers, causing unnecessary wear and tear to processing equipment, and reducing overall operational efficiency.

2.20 The Government's strategy in the energy sector will be articulated after the electricity and coal production master plans are completed. The preparation of both master plans is being launched with the assistance of the Asian Development Bank and the Japanese Government. Several studies are also being carried out in the energy sector that will help design the sector's strategy. They include: an energy efficiency and conservation study; an institution and tariff study; a coal pricing study; and the Egiingol hydropower dam feasibility study. Although detailed options have not been developed yet, the main components of a short and medium-term strategy could be broadly identified as follows:

- in the short term, the objective should be to overcome the crisis in energy production by stabilizing electricity and co-generation of steam and hot water throughout the Central Electricity System (CES) and by securing a steady and reliable supply of coal for the power plants through emergency assistance programs;
- in the medium term, the objective will be to rehabilitate electricity and heat generation in existing plants and the production of coal in existing mines. This will require: prolonging the operations of Power Plant No. 3 by about 5

Box 2.1: Increasing the efficiency of health and education expenditures

Increasing the efficiency of health and education expenditures is a high priority in the Government's public expenditure program. It is important, however, that measures to improve the efficiency of health and education expenditures not only economize on resources allocated to these two sectors but also improve the quantity and quality of services delivered. In addition, care will be required to insure that social services reach those who are in need of it most -- the poor and the destitute.

Health. Public expenditures on health were estimated at 3.4 percent of GDP in 1992. Health services are also provided by an incipient private sector. The government has recently introduced a National Health Insurance (NHI) System. This system is financed by employee and employer contributions amounting to 3 percent of the employee's salary. Nevertheless, large segments of society may still need to depend on some form of free public health services. The government expects that a sizable part of the present expenditures on health will be saved as public hospitals are reimbursed by the NHI. Although there are no quantified estimates, the combination of the NHI and user charges by national and local authorities could in fact reduce the size of public health expenditures. However, two key criteria will need to be observed. First, as a general rule, expenditures to control infectious diseases, such as tuberculosis, should still be financed by the public sector. Second, charging fees for health services should exclude the poorest strata of society. In general, the health system should emphasize preventive programs, and rely less on capital-intensive curative programs.

An increase in maternal mortality rates have been observed. This appears directly related to increased home deliveries associated with the closing of maternity homes in rural areas. High maternal mortality rates may be also related to the continued limited access to contraception and modern methods of family planning, and reduced availability of emergency transport vehicles and hospital supplies. This is one area where expenditures on health could be *increased*.

Education. Mongolia's educational expenditures reached 7.2 percent of GDP in 1992 and 4.6 percent in 1993. Traditionally high levels of educational expenditures resulted in an adult literacy rate of 96 percent and a gross enrollment ratio of 98 percent in primary schools, 85 percent in secondary schools, and 15 percent in tertiary education. Sustaining such high levels of spending on education has proved to be difficult, however. Consequently, the Government has taken several steps to curb spending on education. These include: halting physical capital investment in education, retrenching non-instructional staff, introducing partial cost-recovery for food in kindergarten and boarding schools, phasing out the practice of sending large numbers of students to former CMEA countries, and charging tuition fees in post-secondary and higher education. In addition, schools have been encouraged to generate their own revenues through selling services to enterprises and renting premises. The proportion of non-instructional staff remains high, particularly in post secondary education, and will need to be reduced.

The thrust of the reforms contemplated for the education system are to reduce expenditures on education while at the same time improving and increasing the delivery of education services. The Government has initiated measures in a number of areas to improve the efficiency of expenditures on education. First, resources are being concentrated on improving basic education and reducing dropouts, improving primary education and investing more in books and libraries. The cost per university student is almost 5 times that of a primary or secondary school. Second, stipends and food subsidies are being lowered, particularly at secondary and university levels; the number of non-instructional staff is being reduced; the student-teacher ratios is being increased gradually; technical and specialized schools are being converted into community colleges; and more efficient technologies are being explored for heating schools during winter. Finally, new resources need to be mobilized by charging tuition fees at all post-secondary levels and charging realistic interest rates on student loans.

to 7 years through rehabilitation; partially or totally rehabilitating Power Plant No. 4; rehabilitating the power and heating plants at Darkhan; rehabilitating and improving the power plant at Erdenet; and improving the production and quality of coal delivered to the power plants;

- the options for expanding energy output in the long term are unclear. Mongolia's plentiful coal resources will provide the foundation for continued use of coal-fired plants to supply base load requirements. A major issue is the absence of a secure and cost-effective source of electricity to meet peak load demand. The proposed Egiingol hydroelectric dam, with an installed capacity of 220 MW at a cost estimated at \$225 million, is a possibility. The project would satisfy peak load demand, but is extremely costly.

2.21 The public investment program in energy also contains a number of investments in isolated energy production facilities and in the western power grid. For example, rehabilitation of three provincial (aimak) power plants is being considered. In addition, the creation of the western aimaks power grid is being pursued. A 110 kv line has been built which connects Ulaangom to the Russian electricity grid. One objective for the short term is to connect other aimaks to this line. Ongoing programs to improve the situation at the coal mines are centered around management improvement and equipment and spare parts renewal. A comprehensive investment plan will be identified as a result of the coal master plan study.

2.22 **Rail Transport.** The investment program for the rail subsector aims at consolidating transport capacity and overcoming critical bottlenecks. It consists of several investments amounting to about \$100 million over 1994-97 and includes: construction of transshipment facilities at Zameen-uud, on the Mongolian side of the border with China, to help increase and diversify exports and imports; the purchase of equipment, engines and rolling stocks; and the implementation of a program to procure spare parts, modernize the fleet of coal boxcars, strengthen maintenance workshops and improve management.

2.23 **Urban Transport.** The major issues in the urban transport sector are: accelerated decline in capacity due to shortage of spare parts; low fares to cover operational costs (contributing to overuse); deteriorating quality of services due to bus overloading (up to 100 percent during peak periods); and a centralized structure with insufficient managerial and operational skills.

2.24 A World Bank financed Transport Sector Project aims at reversing the decline in transport capacity of the urban passenger fleet in Ulaanbaatar by increasing the availability of the existing fleet and financing essential fleet renewals, through the provision of spare parts and the purchase of new vehicles. As a result, improved services and reduced vehicle loading to safer numbers of passengers per vehicle per day will be possible. The government is committed to phased increases in urban transport tariffs, and has increased bus fares by 200 percent recently.

2.25 **Road Sector Development.** The new road sector master plan is being prepared with Asian Development Bank assistance. ADB is also considering financing a road improvement project aimed at upgrading 200 km of roads in five main road sections. The total expenditure in the road sector, including routine maintenance and upgrading, would amount to about \$56 million during 1994-97.

2.26 Maintenance (financed from the road maintenance fund and other resources) will need to be given highest priority when choosing the roads to be improved. New construction priorities will need to be deferred for the time being. A proposed major trunk road from Ulaanbaatar to Zameen-Uud needs to be reviewed in light of the road-rail competition for traffic. It appears, however, that the highest densities of traffic are located near the capital and in the western provinces near Hovd. With only 1,300 km of paved roads (including 300 km in the capital city), Mongolia is just now starting a process of developing its road network. The roads which have been built to date are heavily engineered and have provided relatively trouble-free use since their construction. Although more analysis will be necessary to reach firm conclusions, this type of construction may be adequate since, given the scarcity of financial resources in the economy, funds for maintenance will remain minimal and will need to be used carefully.

2.27 **Air Transport.** The airport infrastructure in Mongolia includes 20 airports. The largest is in Ulaanbaatar which is the only one capable of accommodating jet aircraft. Most of the aimak centers have rudimentary airports. The main airline is state-owned; however, there are several private airlines in formation.

2.28 Medium-term development objectives focus on upgrading the international airport and navigational equipment as well as implementing institutional reforms. The public investment program for 1994-97 includes a project to upgrade the Ulaanbaatar airport. The project includes strengthening the existing runway, without extending it; improving the passenger terminal and baggage handling facilities; building a freight handling facility; installing modern navigational equipment that meet international standards; and reforming the institutional setup, including the separation of the airport authority from the government's airline.

2.29 **Telecommunications.** The medium-term objectives for the development of the sector are to: rehabilitate and automate the basic telecommunications network; improve the density and quality of telecommunications service; extend the coverage of basic telephone services in urban and rural areas; establish self-financing for sectoral investments; and stimulate the provision of new services. While the government plans eventually to increase telephone density (about four exchange lines per 100 persons), the emphasis will be on upgrading the existing network rather than on expansion.

2.30 To achieve these objectives, major sectoral reforms will be required including the separation of the postal and broadcasting functions from the Mongolian Telecommunications Company (MTC), the commercialization and privatization of MTC, and the introduction of competition as soon as possible.

2.31 An integrated investment program is also being pursued in telecommunications consisting of a major project totaling \$49 million, financed by ADB, several Nordic donors, KFW and MTC. A parallel project to improve international communications and broaden the telephone network in Ulaanbaatar is being supported with Japanese assistance.

3. MITIGATING THE SOCIAL COSTS OF ADJUSTMENTS

Introduction

3.1 The Government has started an active program to mitigate the adverse effects of stabilization and structural adjustment policies on the most vulnerable groups of Mongolian society. To the extent that the economy recovers and positive growth is sustained, the poor would benefit by way of increased employment opportunity, higher productivity, and rising incomes. In addition, however, the poor can be helped through a judicious mix of macroeconomic and fiscal policies. Trade and exchange rate liberalization, for example, have benefited producers in the tradable goods sectors, including poor herders. Similarly, the pattern of public expenditures could be adjusted in favor of the poor by including affordable and targeted measures that alleviate hardship and suffering among the poorest strata of society. The purpose of this chapter is to review the Government's policy agenda toward the poor during the transition. It begins by examining the profile of poverty in Mongolia and the factors that in recent years may have increased the numbers of poor during the transition. The chapter ends with a description of the Government's efforts to help the poor and recommendations on how such efforts could be improved or augmented.

A brief profile of poverty in Mongolia

3.2 According to official accounts, there was no poverty in Mongolia before 1990, basic needs were met, and access to a full range of social services guaranteed. By the end of 1992, the government estimated that about 16 percent of the population lived below the poverty line; by late 1993, this share increased to 18 percent; and by March 1994, the estimate was increased again to 26.5 percent. The poverty line in late 1993 was estimated at Tug 3,200 (US\$8.00) per person per month for urban areas, and Tug 2,900 (\$7.20) for rural areas (see Table 3.1). The government has identified six groups considered especially vulnerable to economic hardship. These are children who have lost one or both parents; disabled persons; the elderly; female-headed households; households with many children; the unemployed; and herders who own few animals. Of course, these groups are not mutually exclusive.

3.3 As of the end of 1993, about half of the poor lived in the cities, and the other half, in rural areas. On average, the poor account for a higher proportion of the local population in aimaks (20 percent) than in the cities (13.8 percent). Furthermore, the number of poor as proportion of the population vary widely from aimak to aimak. For example, the poor made up 39 percent of the total population in Dornod; 34 percent in Arhangay; less than 9 percent in Selenge, Dornogobi and Bulgan; 11 percent in Ulaanbaatar, 17 percent in Darkhan, and 5 percent in Erdenet. Cities had a higher proportion of elderly poor (20 percent) but a lower share of the poor who were

Table 3.1: The number of poor in Mongolia

| Month/Year | Poverty line | | No. of poor (000's) | No. of poor households (000's) | Share of population below poverty line (in percent) |
|---------------|--------------|------------|---------------------|--------------------------------|---|
| | Urban (Tg) | Rural (Tg) | | | |
| March 1992 | 345 | 216 | 347 | 69 | 16 |
| December 1993 | 3200 | 2900 | 402 | 86 | 18 |
| March 1994 | 3200 | 2900 | 587 | .. | 26 |

Source: Ministry of Population Policy and Labor.

aged 16 and below (40 percent). The reverse is true in aimaks, whose elderly population accounted for 10 percent of the poor, and children under the age of 16 accounted for 48 percent.

Factors affecting poverty in Mongolia

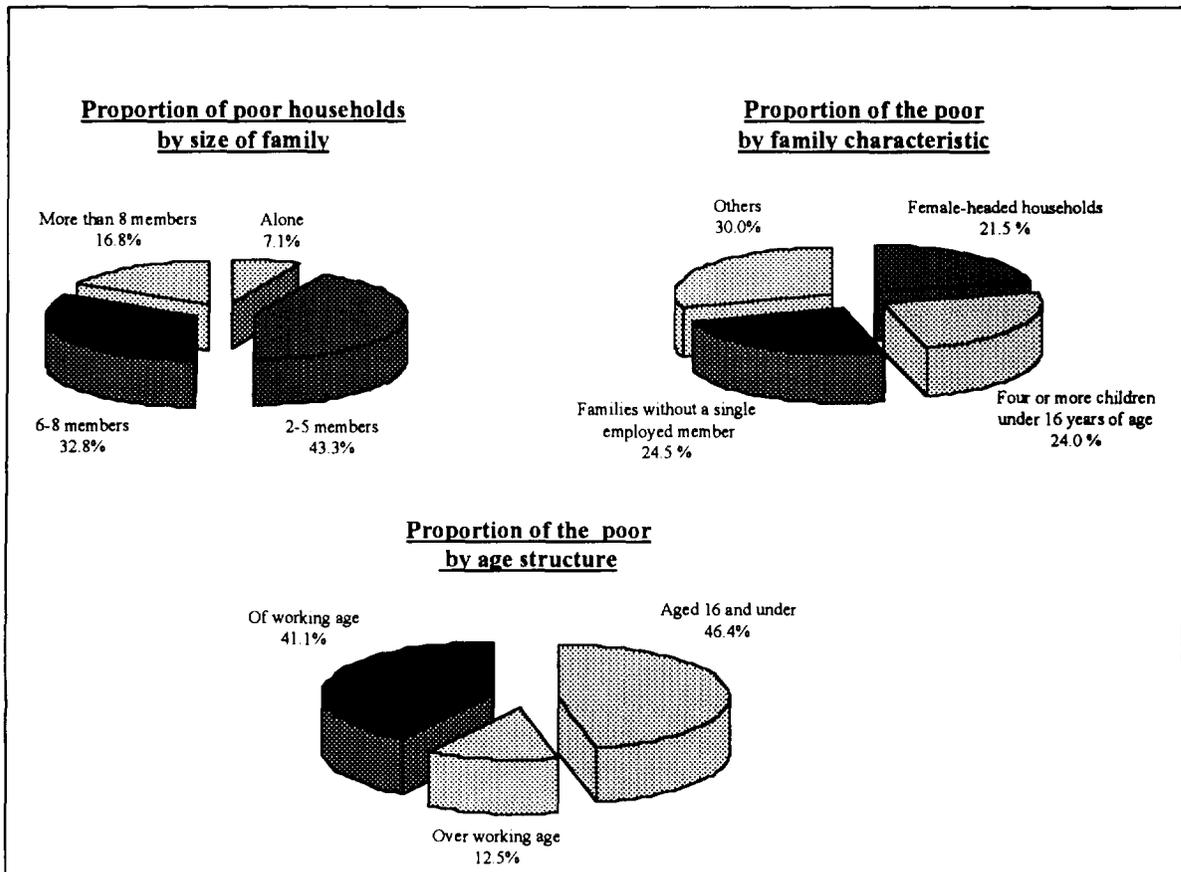
3.4 Several factors lie behind the recent increase in poverty in Mongolia. Termination of financial support from the former Soviet Union, fiscal contraction, inflation, and some aspects of privatization (especially the unequal distribution of livestock) have had adverse effects on employment and real incomes, the delivery and quality of basic education and health services, and social assistance services particularly for the most vulnerable groups of society. Twenty-four percent of the families living in poverty have four or more children (at the end of 1993, the average poor family size was 4.8; the average non-poor family size was 4.3). Pro-natal policies of the past supported large families with generous subsidies and welfare programs. In the current resource constrained environment, subsidies and welfare programs have been cut, and this has pushed many households below the poverty line. Similarly, growing unemployment probably contributed to the growing ranks of the poor: twenty four percent of the families living in poverty are without a single employed member. In addition, shortcomings in the privatization program for herds meant that several families received herds of uneconomic size. Finally, structural reforms, although likely to generate growth in the long run, are leading to significant amounts of frictional unemployment in the short run as unviable enterprises close in the face of changed economic circumstances. In this context, expenditure cutbacks by the Government, especially in the delivery of health and education services, have hurt some segments of Mongolian society.

3.5 **Pro-natal policy.** Given Mongolia's sparse population, previous governments encouraged large families by making abortion illegal and contraceptives unavailable, and by providing generous state support for child care, maternity leave, early retirement for women with more than four children, and free and universal maternity care. This resulted in fertility rates averaging 7.2 in 1974-79, 6.3 in 1979-84, and 5.4 in 1984-89 (compared with the average fertility rate for all

developing countries of 3.3 in 1992). In 1992, 15 percent of the population were four years old or below and 26 percent were between the ages of 5-14. The median age was 18. Almost a fourth of poor households had four or more children under the age of 16 (see Figure 3.1).

3.6 A large family size tends to lower the welfare of each member of the household, especially when the dependency ratio (that is, the number of dependents for each working adult) is high. Moreover, more children per household means increased government expenditures for medical care and education. Large numbers of children born in the 1970s are now entering a reproductive age, and those born in the 1980s are beginning school. Unfortunately, this has come at a time when real wages of individual household members have been drastically reduced and government expenditures on social programs have declined. Moreover, the population continues to grow at 2.3 percent per annum, and the labor force at 3.4 percent per annum. At this growth rate, about 30,000 young people enter the labor market each year. With a declining economy, such large numbers of new entrants have been difficult to absorb in productive jobs. This has contributed to growing unemployment and swelled the ranks of the poor.

Figure 3.1: The profile of poverty in Mongolia, 1993



Source: MPPL

3.7 The pro-natal policy was reversed in 1991: abortion was legalized, family planning introduced, and contraceptives made widely available. Those living in urban areas were the ones to benefit most from these programs. Those in rural areas have been less fortunate as medical

services have become more difficult to access. Indeed, the pro-natal tradition is still strong in rural areas. Small children tend to demand a considerable part of the mother's time, diverting her from production and income generating activities. Under these circumstances, it is not surprising that, in 1993, 24 percent of poor households had more than four children under 16, and 21.5 percent were female-headed families.

3.8 **External Shocks.** The withdrawal of Soviet assistance and the collapse of the Council of Mutual Economic Assistance (CMEA) led to a virtual collapse of Mongolian trade with a corresponding decline in output and incomes. The cancellation of Soviet projects and interruption in the supply of basic inputs, such as fuel and materials, had a large impact on industrial production and construction. Construction, transport, and service workers in state enterprises were hit the hardest. Although many may have come from countryside originally, their return would have been difficult and unlikely. Since the number of working single mothers without access to child care facilities is high, potential unemployment is of major concern. Opportunities for self-employment for those without business skills and access to capital remain limited. Although trade liberalization has created many new opportunities, they have been insufficient to compensate for job losses caused by economic contraction and restructuring. The decline in real wages also affected low-income earners and pensioners, while concomitant reductions in social expenditures adversely affected the most vulnerable groups.

3.9 **Shortcomings in the privatization program.** Before 1989, 70 percent of livestock were owned by agricultural collectives, less than 10 percent by state organizations, and 20 percent by private individuals. There was a ceiling for the number of private animals allowed per household. In the euphoria of political liberalization in 1991, livestock was privatized without explicit equity considerations. Collectives were given a large degree of freedom in privatizing their assets under, at times, conflicting guidelines, which gave weight to the following criteria: (i) the number of animals a person contributed from his/her private herd at the time of collectivization; (ii) the original members of the collective; (iii) the number of years a person has worked in the collective; and (iv) the contribution a person made to the collective. Strict interpretation of the first criterion entitled former owners of large herds to receive animals, even though they may have moved to the city after collectivization. Strict interpretation of the last criterion favored able-bodied men and their families over and above single women. As a result, the distribution of livestock through the privatization process was uneven. About 20 percent of households (many of them headed by females) received less than 10 animals, not enough for a family to survive on. Even with availability of fodder and veterinary services, it is common for 20 percent of livestock to perish in a severe winter. Families with small herds are, of course, particularly vulnerable.

3.10 Since the value and function of sheep, goats, cattle, horses, and camels are different, the well-being of Mongolian rural households is also associated with herd composition, particularly when the herd is small. Households need mixed herds to meet their needs for milk, meat, transportation, and cash income to buy necessities such as flour and medicine. Reports suggest that women systematically received livestock of lesser value, thus providing them with a smaller asset base and lowering their potential income stream.

3.11 **Structural Adjustment.** In the long run, implementation of structural adjustment policies are expected to restore growth and improve the conditions of the poor. It is expected that GDP will need to grow by over 3.5 percent to absorb all new entrants to the labor force¹³. To reduce unemployment in the short term, Mongolia will need to grow even faster. On the other hand, were

reforms to slow and the economy to stagnate, unemployment would increase by 4-5 percent per year.

3.12 Current labor policies encourage labor mobility and facilitate job creation. Firms are now free to hire and fire personnel as they choose. Minimum wages are low enough to encourage labor-intensive operations. Under these improved conditions, several new garment factories have been established, employing over 7,500 new workers, mostly young women. But the introduction of taxes on wages to finance health, retirement and social security schemes tends to dampen incentives for job creation. For example, a health insurance scheme recently introduced requires workers and employers to contribute the equivalent of 6 percent of the wage bill divided equally between them. Retirement and pension schemes require additional contributions of 13.5 percent of wages. And other welfare schemes are in the process of being introduced. Policymakers face a trade off between welfare programs and job creation. If jobs are not generated quickly, poverty will spread further. On the other hand, many poor could suffer if the retirement schemes and other social security systems do not work well. But at Mongolia's current stage in its transition, however, job creation has to take priority over welfare as the principal means to reduce poverty. The government should consider, therefore, slowing the introduction of new mandatory welfare schemes until the economy is on a better financial footing.

3.13 One important contribution the Government could make in alleviating the unemployment situation and increasing the productive potential of the labor force is by the provision of technical and vocational training. Unemployment is highest among the unskilled labor force, which accounted for 65 percent of the unemployed in 1994. Unemployment among those with higher education was only 1.7 percent of the total. Even after taking into account the relative size of the total number of skilled and unskilled in the labor force, it is clear that skilled labor are in greater demand and are better able to adjust to changing requirements of employers. The development of a skilled labor force would help in the longer term as well since skilled labor raises productivity, lowers unit costs, and enhance international competitiveness.

Table 3.2: Registered unemployed by education level and skill, 1992-94
(as percent of total number of registered unemployed)

| | January 1992 | January 1993 | January 1994 | April 1994 |
|---------------------------------------|--------------|--------------|--------------|------------|
| Higher education | 2.6 | 1.3 | 1.7 | 1.7 |
| Specialized secondary | 6.8 | 6.3 | 7.8 | 7.7 |
| Skilled workers | 19.9 | 23.1 | 22.4 | 25.4 |
| Unskilled workers | 70.7 | 69.2 | 68.1 | 65.3 |
| <u>Memo items:</u> | | | | |
| Proportion of female workers | | 56.4 | 53.4 | 53.8 |
| Total number of registered unemployed | 55,407 | 54,402 | 71,912 | 72,542 |

Source: State Statistical Office

3.14 Continuing structural reforms probably will lead to further unemployment, especially in the industrial sector, which needs major restructuring, and in the public sector which is overstaffed. Unemployment could potentially rise by about 55,000 over the next three years from further indus-

trial restructuring and public sector retrenchment. Structural deficiencies in the industrial sector are evident: high concentration of output in few large companies with old technology and heavy dependence on the former CMEA market. Concentration of the top five companies varies from 48 percent to 90 percent of output in each subsector. The firms most vulnerable to policy reforms and

Table 3.3: The domination of the five largest firms by industrial subsector

| Sector | Total employment | Exports (\$ million) | Exports of largest 5 firms (in percent) | Employment in the 5 largest vulnerable firms |
|-----------------|------------------|----------------------|---|--|
| Wool | 15,203 | 33 | 69 | 10,490 |
| Leather | 15,710 | 16 | 69 | 10,840 |
| Construction | 12,101 | 0 | 67 | 0 |
| Materials | | | | |
| Meat and Dairy | 7,320 | 36 | 90 | 6,588 |
| Beverages | 1,740 | 0 | 90 | 0 |
| Other Food | 14,007 | 0 | 75 | 0 |
| Garment | 7,528 | 0 | 70 | 0 |
| Wood Processing | 15,946 | 12 | 48 | 7,654 |
| Chemicals | 5,991 | 0 | 99 | 0 |
| Others | 10,563 | 0 | 49 | 0 |
| Total | 106,109 | 97 | | 35,572 |

Source: *Reconstruction and Development of the Industrial Sector of Mongolia*, The Boston Consulting Group, November 1992. World Bank staff estimates.

changing incentives are the large ones which depended on exports to the former CMEA market because these firms depended on a "secured" market which is now contracting and demands better quality for the goods it imports. Should these firms close, the employment loss could be about 35,000 people (see Table 3.3). Since the industrial sector provides about 106,000 jobs in total, this would imply a decline in employment equivalent to about 33 percent of total industrial employment (or 4.4 percent of total employment). In the meantime, however, the creation of new, competitive industries is expected partially to offset this loss by absorbing some of the unemployed. Nevertheless, overall unemployment can be expected to increase before it declines.

3.15 The public sector is also over-staffed, and actions in this sector are also likely to increase unemployment in the short term (Table 3.4). First, the education sector employs over 63,000 people and a priority of government policy has to be to reduce non-teaching personnel. The health sector employs over 42,000 staff and also has excessive administrative personnel. Finally, the municipalities employ over 10,000 people, somewhat excessive for a small country such as Mongolia. These three areas account for over 62 percent of public sector employment, excluding public enterprises, which are outside the budget. The government plans to reduce employment by about 4 percent per year during the coming years, or about 6,500 people per year. In about three years, the public sector would be reduced to a more appropriate size, provided the reduction takes place in the right areas and functions. Natural attrition could reduce personnel by 1-2 percent or 1,600 people.

3.16 Not only have incomes declined and unemployment increased, but the quality and quantity of social services in Mongolia have deteriorated. Real expenditure on health services fell 43 percent over 1990-1992. The most striking effect has been a doubling in the maternal mortality rate from 12 in 1990 to 24 in 1993 per 10,000 live births. The closure of cooperatives abolished the organizational unit that provided health services, such as waiting rooms and health facilities for pregnant women, and resource cuts did not permit the introduction of alternatives. Infant mortality rates in rural areas have remained high in spite of a 20 percent reduction in birth rates from 1989 to 1992. Declines in service coverage have been especially pronounced in rural areas, including

some preventive services, such as childhood immunizations, which have suffered interruptions.

Table 3.4: Public sector restructuring

| Sector | Employment ('000s) | Possible reduction ('000s) |
|----------------|--------------------|----------------------------|
| Health | 42.0 | 6-8 |
| Education | 63.8 | 10-13 |
| Municipalities | 10.0 | 1-3 |
| Other | 52.2 | |
| Total | 168.0 | 17-24 |

Source: Mission Estimates based on: Report by Coopers & Lybrand (1993), Kin Bing Wu (1993), Elbirt & Others (1992).

3.17 Basic education delivery has also suffered during the transition, particularly for rural and nomadic people. In spite of considerable investment through the 1980s, education and training continue to experience shortages in many areas. In 1990, education accounted for 17.6 percent of government expenditures and 11.3 percent of GDP. By 1993, the allocation to education was reduced to 15.2 percent of the state budget, and to 3.8 percent of GDP.

In 1993, an estimated 23 percent of compulsory school age children were not enrolled in grades 1-8. Many residential schools for nomadic children have been closed (leaving no educational alternatives for the affected students). Moreover, rural and nomadic families increasingly face trade-offs in a market economy between sending their children to school and having them remain at home to assist with economic activities to support the family.

3.18 Pensioners are another group that have suffered real income declines in recent years. Real average pensions fell by over 60 percent during 1991-93 as resources dropped in line with real wages (see Table 3.5). Average earnings of all retirees were below the poverty line in 1993. The most vulnerable of the pensioners are those that can not work and have dependents. Prominent among them are women heading families with more than four children. Women receiving pensions because they have four or more children account for about 24 percent of the 311,000 retirees in Mongolia. Furthermore, there are over 2,000 blind and deaf persons who are receiving pensions. Their pensions were over the average, but still below the poverty line in 1993. Given resource limitations, it is impossible to increase pensions substantially over the medium term, unless retirement contributions are further increased. Targeting poor retirees in poverty alleviation programs seems the most advisable path to alleviate the situation of this very needy group.

Table 3.5: Monthly pension earnings
(Average - 1991 Tg)

| | All types | Regular | Disabled | Survivors | Specials |
|------|-----------|---------|----------|-----------|----------|
| 1989 | 343.0 | 356.4 | 273.9 | 323.9 | 816.5 |
| 1990 | 699.0 | 730.4 | 546.1 | 638.3 | 1659.7 |
| 1991 | 455.0 | 490.6 | 369.1 | 429.1 | 110.9 |
| 1992 | 191.2 | 206.8 | 156.6 | 168.0 | 64.4 |
| 1993 | 167.1 | 172.8 | 155.0 | 159.5 | 121.0 |

Sources: Ministry of Labor and Population Policy; World Bank staff estimates.

3.19 Benefits provided by the Social Security System have declined substantially (see Table 3.6). Maternity leave, child care and other benefits have been reduced. The overall number of beneficiaries is now 15 percent lower than two years ago. The decrease in the amount spent in real terms has been dramatic, to less than 10 percent of the amount spent in 1990. The reduction of maternity benefits is being felt by many poor people, particularly in rural areas. Some reorientation of health expenditures to target the very poor, combined with the implementation of family planning programs, seems the most appropriate answer to these problems.

Table 3.6: The decline in spending on social security
(Index of real spending on non pension benefits per beneficiary)

| | Sick leave | Maternity | Child Care | Other | Total |
|------|------------|-----------|------------|-------|-------|
| 1990 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1991 | 38.8 | 46.6 | 112.8 | 94.3 | 55.0 |
| 1992 | 13.3 | 15.5 | 42.4 | 6.6 | 17.0 |
| 1993 | 9.2 | 5.4 | 35.4 | 3.0 | 8.9 |

Source: Ministry of Labor and Population Policy and World Bank staff estimates.

Mitigating the social costs of adjustment: the policy agenda

3.20 International experience shows that poverty can be reduced rapidly by pursuing a strategy that has two equally important elements. The first element is to promote the productive use of the poor's most abundant asset -- labor. This calls for policies that harness market incentives, investment in physical capital and infrastructure, and the development of social institutions to promote the productivity of labor. In Mongolia, this means a continuation along the present path of reform and transition to a market-oriented economy. The second element is to provide basic social services to the poor: primary health care, family planning services, nutrition, and primary education. These two elements are mutually reinforcing; without one, the other is not sufficient.

3.21 The Government has introduced a poverty fund and, with the help of donors, is designing several programs to: (a) provide income-generating opportunities to those of working age (41 percent of the poor); (b) provide some form of relief, including transfer payments, to those incapable of taking care of themselves (13 percent of the poor); and (c) invest in education for children and orphans (46 percent of the poor) to ensure they develop the capability of self-reliance and self-improvement (Box 3.1). Many of these programs will be channeled through local authorities. To improve the situation of those having too few animals, the Government could consider the privatization of 700,000 heads of livestock still in its hands.

3.22 The Government is improving its ability for policy management to reduce poverty. It has created a Poverty Alleviation Program Management Unit (PAP Management Unit) and, to facilitate monitoring and decision-making, is planning to carry out a broader Living Standards Measurement Survey (LSMS) with external assistance. The LSMS should help improve the targeting of the poor and the identification of the most appropriate measures to fight poverty in each case.

3.23 The Government has identified a five-year program for poverty alleviation which is estimated to cost about US\$82 million (US\$16 million a year or \$30 per poor person per year). According to Government, the combination of growth and poverty alleviation measures would lead to a reduction of poverty from the present level of 26 percent of the population to about 10 percent by the year 2000. This is an ambitious target that will require a sustained GDP growth of about 5 percent a year and well organized Government programs to deliver basic social services to the poor.

3.24 There is consensus in Mongolia that, looking to the longer term, external assistance should seek to move beyond prevention and remedial action by dealing with the causes of poverty rather than the symptoms. Assistance should focus on activities to sustain gains made in the short term. Such activities include:

- The introduction of poverty alleviation as a cross-cutting issue concerning the activities of all government agencies, in particular those involved in economic policy making;
- Restoration of cost-effective basic education and rural health services, which would reduce school drop-out rates and improve health indicators;
- Generation of new opportunities for sustaining a larger work force in the market economy; and

- The provision of opportunities to develop and support genuine community participation.

3.25 At the request of the Government, donors are assisting in implementing its poverty alleviation program and several projects are being implemented or under preparation. Projects financed by donors (some of them mentioned in Box 3.1) amount to more than US\$20 million and will finance the first 18 months of the Government's five-year program. Donors' contributions to poverty alleviation include short-term relief assistance in food and medicines, work programs to alleviate the situation of unemployed workers while improving the country's infrastructure, and, long-term remedial actions to deal with poverty issues, particularly job training, education for dropouts, etc. It should also be mentioned that donors are providing assistance in the critical area of policy analysis and policy formulation for poverty alleviation.

Box 3.1: Main Programs to Fight Poverty

* **Employment/public works:** an "Employment Promotion Fund" was created to provide credits and training (using proceeds from the privatization vouchers). Also, an AsDB Employment Generation Credit for \$3 million is being completed. UNIFEM, UNFPA, USA, and Germany are providing some credit schemes for employment generating activities. A "Special Training Center for the Disabled" was set up to provide vocational training. There are, also, labor exchange offices through which nearly 50,000 people have found jobs since 1992. A prospective IDA project will focus on public works and providing of social services--health, education--to vulnerable groups.

* **Health services and education assistance:** several programs are currently under implementation or ready to start soon. They are financed by WHO, UNICEF, UNFPA, Denmark, Germany, Japan, UNESCO, ADB, DANIDA, and some NGOs. These various programs provide assistance for family planning, access to water services by lower-income sectors, vaccination for children, promotion of breast feeding, educational programs for drop outs, etc.

* **Women living in poverty:** the Mongolian Women's Federation (MWF) has a program jointly with UNFEM in Ulaanbaatar and Darhan. MFW with ILO are implementing a UNFPA project to enable women to work at home and increase their incomes. There are also some programs for non-formal education of women at the Gobi area (with UNESCO involvement and support).

* **General Relief:** the Government provides subsidies for fodder, medicines, children clothing, and general needs. USAID has donated grain and butter. The counterpart funds of some loans provided by AsDB could be used for poverty alleviation.

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ANNEXES

THE PRIVATIZATION PROCESS

I. BACKGROUND

1. The privatization program was initiated in October 1991 with the free distribution of share vouchers to every citizen born before May 31, 1991. Based on the 1/1/91 census, from a population count of 2,103,297, vouchers were distributed to 1,989,889 Mongolians. Each citizen was given 1/3 three "red" vouchers, (with a nominal face value of Tug 1,000) and one "blue" voucher (with a nominal face value of Tug 7,000). Red vouchers are tradeable on secondary markets; blue vouchers are not, but could be assigned to nominees.

2. The privatization program is being implemented in two phases. In the first *small privatization* phase, assets of small businesses, agricultural units, restaurants, factories, shops and retail outlets, with a total voucher value of Tug 5.9 billion, were auctioned to private individuals. Individuals would bid using their red coupons at auctions organized jointly by local authorities and the Privatization Commission. The highest bidder(s) would win, and the Commission would issue an ownership certificate to the winner. A potential buyer would amass his needed vouchers through a well-functioning secondary market, and would supplement the auctioned price with cash as required. Employees of companies scheduled for privatization were given first rights to form a coalition to bid/acquire their firm. Higher bids relative to assessed book value occurred for assets in central areas such as Ulaanbaatar, Bayangore and Darkhan.

3. In the second *big privatization* phase, the assets of large enterprises, with a total voucher value of Tug 13.9 billion, are being privatized. The big privatization process begins with enterprises developing privatization plans and seeking approval for its implementation from the Privatization Commission. The enterprises are converted into joint stock companies, while the Commission values the companies' fixed assets, audits their balance sheets, and issues shares on the basis of net assets. Shares are sold in batches at the Mongolian Stock Exchange. Using their blue vouchers, bidders would declare a price or a price range for the shares, and a time period during which their bids remain valid. Brokers in each aimak would, in turn, collect declarations and phone in bids to the Stock Exchange. The broker with the highest bid would win and would register the owners, providing them with ownership/shareholding certificates. However, since secondary trading of blue vouchers is prohibited, ownership of the newly privatized companies has been diffuse.

II. PRIVATIZATION RESULTS

4. Assets valued at Tug 17.3 billion in 4,004 enterprises had been approved for transfer to private ownership as of end-March 1994. All assets covered by the voucher system are expected to be sold by August 1994. Small nonagricultural assets have been sold through auction and large nonagricultural assets have been sold through the Mongolian Stock Exchange. Agricultural assets have been distributed to farmers and herdsmen, without being offered for public sale.

1/ Vouchers were given free of charge for low income families (i.e. income per month of less than Tug 200/month per each individual in the family), while all others were required to pay a flat fee of Tug 200 to obtain Tug 10,000 worth of coupons.

5. Small Privatization. To date, 3,128 economic entities with an asset value of almost Tug 4 billion have been privatized.^{2/} The Privatization Commission expects to utilize the remaining unused vouchers, amounting to Tug 1.67 billion, to privatize the housing sector in the coming years. Table 1 below summarizes the results of the small privatization process.

Table 1: Small Privatization
(In Tugrik million)

| Total Planned Assets for Privatization | Privatized Assets | | | Asset Value of Remaining Red Vouchers |
|--|-------------------|-------------|-----------|---------------------------------------|
| | Cash | Red Voucher | Sub Total | |
| 5,969.7 | 311.5 | 3,988.1 | 4,299.6 | 1,670.1 |

6. Big Privatization. The Privatization Commission has approved Tug 13 billion in assets for privatization from a total of Tug 13.9 billion worth of vouchers distributed to the population. The Commission expects to utilize the Tug 897.9 million in unused blue vouchers for further privatization in 1994. To date, 312 agricultural cooperatives/state farms, with an asset value of Tug 8.9 billion, and 564 non-agricultural entities (in industry, construction, transport etc.), with an asset value of Tug 8.9 billion, have been privatized through the big privatization process. Assets valued at Tug 6.5 billion have been sold through the Stock Exchange (SX) and the remaining approved assets are scheduled to be sold during 1994. The remaining assets are scheduled for share listing in the Stock Exchange in 1994. Table 2 below summarizes the results of the big privatization process.

Table 2: Big Privatization
(in Tugrik million)

| Total Planned Assets for Privatization | Agri-culture | Privatized assets | | <u>Assets sold in SX</u> | | Assets Value of Remaining Blue Vouchers |
|--|--------------|-------------------|-----------|--------------------------|------------|---|
| | | All others | Sub total | Agri-culture | All others | |
| 13,929.2 | 4,091.7 | 8,939.6 | 13,031.3 | - | 6,492.0 | 897.9 |

7. Agricultural Privatization. The privatization of agricultural entities has been separate from the small and big privatization process. Agricultural assets were not offered to the public and were not sold through the stock exchange. Instead farm plots were basically divided amongst the farmers working on existing state farms and/or cooperatives (without transferring the property of the land which is not yet regulated). Livestock were also subdivided amongst the herders (i.e. members of the cooperative), with each member surrender-

^{2/} Although Mongolia has suffered from a substantial inflation, the original valuation of assets for privatization continues to be relevant because the number of vouchers used continues to be the same.

ing all their vouchers (both red and blue vouchers worth Tug 10,000) to the local privatization commissions. As a consequence, members of larger farms and cooperatives with larger herds received more plot and/or livestock than members of smaller agricultural units.

8. The results of the small and big privatization process, by assets and by the number of entities privatized, are shown in Tables 3 and 4 below. Note that the number of privatized entities has been a function of the number (value) of vouchers distributed. *A posteriori*, then, the value of red vouchers distributed exceeded the number small economic entities to be privatized, while the value of blue vouchers underestimated the number large entities scheduled for privatization. Table 3 shows the value of assets in private hands; that is, for privatized entity with 51% government ownership, only the 49% privately-owned share is shown in Table 3.

Table 3: Privatized Assets by Sectors
(In Tugrik million)

| Sector | Small Privatization | Big Privatization | Total |
|---------------------|---------------------|-------------------|-----------------|
| Industry | 194.4 | 5,037.9 | 5,232.3 |
| Construction | 155.6 | 1,269.1 | 1,424.7 |
| Transport | 143.2 | 524.5 | 667.7 |
| Telecommunications | - | 12.1 | 12.1 |
| Trade and wholesale | 946.4 | 577.7 | 1,524.1 |
| Housing | 7.9 | - | 7.9 |
| Service | 307.3 | 26.7 | 334.0 |
| Agriculture | 1,851.7 | 4,091.7 | 5,943.4 |
| State/fodder farms | 15.3 | 1,245.8 | 1,261.1 |
| Others | 677.8 | 248.8 | 923.6 |
| Total | 4,299.6 | 13,031.3 | 17,330.9 |

9. Table 4 lists the number of economic entities that have been privatized to date. The exact number of privatized entities has, and is constantly changing, since larger industrial units that were broken down into smaller ones during the initial stages of privatization have subsequently merged. For example, there were 19 state farms in Selenge province that were broken down into 97 privatized agricultural units in 1992, but they have since merged into 67 units in 1993. Many smaller plots were forced to merge as available farm machinery are only suited for mass production designed for use on the former large state farms.

Table 4: Number of Privatized Entities

| | <u>Big Privatization</u> | | | | T* | <u>Small Privatization</u> | | | | T**TOTAL |
|-------------------------------|--------------------------|-----------|------------|------------|------------|----------------------------|--------------|------------|--------------|--------------|
| | 1 | 2 | 3 | 4 | | 5 | 6 | 7 | | |
| Industry | 40 | 11 | 93 | 28 | 172 | 51 | 72 | 17 | 140 | 312 |
| Construction | 20 | 4 | 58 | 70 | 152 | 55 | 125 | 29 | 209 | 361 |
| Transport | 22 | 7 | 26 | 25 | 80 | 42 | 23 | 66 | 131 | 211 |
| Telecom. | - | - | 1 | - | 1 | - | - | - | - | 1 |
| Trade and wholesale | 27 | 5 | 11 | 80 | 123 | 207 | 770 | 217 | 1,194 | 1,317 |
| Housing | - | - | - | - | - | 6 | 3 | - | 9 | 9 |
| Service | 1 | 1 | 1 | 5 | 8 | 68 | 563 | 439 | 1,070 | 1,078 |
| Agriculture | - | - | - | 99 | 99 | 1 | 17 | 31 | 49 | 148 |
| State farm and fodder farm | 50 | 23 | 33 | 107 | 213 | 2 | 25 | 12 | 39 | 252 |
| Others | - | 2 | 14 | 12 | 28 | 66 | 104 | 117 | 287 | 315 |
| Total | 160 | 53 | 237 | 426 | 876 | 498 | 1,702 | 928 | 3,128 | 4,004 |

Note:

1. Majority state owned; 2. Partly state owned; 3. Shareholding company; 4. Limited liability company; 5. Limited liability company; 6. Partnerships; 7. Proprietorships; T* Total through big privatization; T** Total through small privatization

III. NEXT STEPS

10. The scope and level of Mongolia's privatization program have been impressive. Indeed, it has been the most successful privatization program as compared to other programs in effect in Republics of the former Soviet Union. The objective of the privatization program was to privatize 44% of total state-owned assets. In asset value terms, the authorities envisaged privatizing Tug 19,898.9 million worth of assets from the small and big privatization process. To date, Tug 17,330.9 million worth of assets have been collected from the public. In other words, the privatization process is about 87% complete. But, there remains numerous kinks in the system, relating to corporate governance, capital infusion into the newly privatized entities, financial accountability, and managerial autonomy. These issues are examined below.

Further Privatization

11. The merit of the small privatization process was its success in transferring small shops and businesses to private owners. However, the further development of small and medium-scale enterprises have been hampered by the lack of *land ownership legislation* and clarity on property rights. Under these conditions, private owners have been unwilling to invest their personal capital in their own companies.

12. From a total of 564 newly privatized non-agricultural entities, 213 companies are still majority and/or part state owned. The Government continues to own 75% ownership in Gobi cashmere factory; 51% ownership in Mongol Meatimpex, Darkhan meat processing factory, Arkhi vodka and beverage factory, UB flour mill, UB food processing factory, Materialimpex; and 30% ownership in UB construction company, petroleum transport company, to mention a few. Table 5 below shows the asset value of the partially privatized companies by sectors. The authorities should press ahead with further sales of these shares.

Table 5: Government Majority and/or Part Ownership in the Newly Privatized Companies
(In Tugrik million)

| Sector | No. of Entities | Assets remaining under the State Control |
|---------------------|-----------------|--|
| Industry | 51 | 3,501.7 |
| Construction | 24 | 551.4 |
| Transport | 29 | 331.5 |
| Trade and wholesale | 32 | 648.2 |
| Service | 2 | 18.1 |
| Agriculture | 75 | 1,231.6 |
| Total | 213 | 6,282.5 |

13. There remain a substantial number of wholly state-owned entities. Originally, the Government intended to retain full ownership (or its current share in case of joint-ventures) of 21 companies, such as MIAT, Ulaanbaatar Railroad Company (Mongolrail), Mongol Petroleum Company, Gold Mining Company, Road Construction Company, Geological Survey Company, Drug Manufacturing Company, and various laboratories and research centers. Recently, decisions have been taken to privatize some of these companies. In addition, the government has indicated its intention to fully or partially privatize an additional 239 economic entities. The authorities further intend to reduce the government's share in the partially owned companies by selling state shares for cash through auction and/or through the

stock exchange once secondary market transactions begin. Table 6 shows the asset size of these 'soon-to-be-privatized' companies by sector.

Table 6: Remaining State-owned Assets Considered for Privatization in 1994, by Sectors
(In thousands of Tugrik)

| Sector | Big Privatization | Small | No. of Entities |
|--------------------------|---------------------|--------------------|-----------------|
| Industry:* | | | |
| Energy | 354,950.0 | - | 16 |
| Fuel | 88,308.6 | - | 15 |
| Geology | - | - | 1 |
| Metal processing | 3,950.8 | - | 2 |
| Chemicals | - | - | - |
| Building materials | 105,443.9 | - | 7 |
| Wood and wood processing | 5,621.8 | - | 4 |
| Light industry | 35,580.96 | - | 6 |
| Printing | 9,726.08 | - | 3 |
| Food | 128,625.76 | - | 11 |
| Others | 49,556.64 | - | 4 |
| Construction | 21,632.3 | - | 9 |
| Transport | 228,625.28 | - | 24 |
| Airways | - | - | - |
| Railroad | - | - | - |
| Telecommunications | 51,080 | - | 1 |
| Trade and wholesale | 241,379.5 | - | 51 |
| Housing | - | 2,062,900.0 | 2 |
| Service | 28,876.88 | - | 7 |
| Agriculture: | | | |
| Cooperatives | 7,209.0 | - | 1 |
| State farm | 32,484.88 | - | 6 |
| Farmers | - | - | - |
| Others | 259,974.2 | - | 61 |
| Other buildings | 114,759.2 | - | 8 |
| Total | 1,767,786.46 | 2,062,900.0 | 239 |

* - Excludes Erdenet Mining Corporation.

Note: Valuation based on fixed assets.

Corporate Governance

14. The creation of effective corporate governance is a three stage process: voucher issue, share listing/auctions, and shareholder consolidation through secondary trading. As yet, no company in Mongolia has gone through the entire process. The lack of effective corporate governance reduces the independence and autonomy of the private sector, and further hampers its corporatization and/or capitalization process. To date, there has been no capital infusion to the newly privatized firms, and the only financial instruments introduced so far have been the vouchers. Under these conditions, management has not been accountable, and shareholders have control only in theory but against a background of zero real ownership.

15. Several factors currently contribute to ineffective corporate governance in newly-privatized enterprise (NPE). The ownership structure of these enterprises reflects heavy insider purchases and outside ownership is extremely diffused. The high percentage of insider ownership is not a result of the design of the privatization program but rather the result of employees exercising their right to choose from among the stocks of many enterprises. As such, there is no reason to suspect that this general behavior will change for those firms remaining to be privatized. There is nothing the government can do to modify this outcome directly but there is the possibility that the availability of secondary trading will lead to workers divesting their shares in their own enterprises. Given the fact that workers do not appear to have invested rationally in the past (on average they have done worse than other investors by favoring their own firms), secondary trading may actually lead to a greater concentration of ownership among insiders. The immediate motivation for secondary trading, however, is to concentrate outside ownership sufficiently to offset the influence of insiders on governance.

16. Concentrated ownership is not sufficient to assure effective corporate governance if outsiders have no mechanisms for exercising control. Typical western corporate governance mechanisms, e.g. shareholder meetings and boards of directors, exist in some fashion in Mongolia but do not adequately protect outsider shareholder interests. One reason for this is that the relevant statutes either did not anticipate the issue (the Privatization Law) or did not fully account for the mechanics of privatization (the Company Law, even as amended in August 1993). For example, in the case of NPEs, the "constituents assembly", which is intended to formally initiate a shareholding company, occurs after insider shareholders are known, but before outside shareholders are identified. Yet, according to the company law, this meeting is supposed to elect the Board of Directors, the Control Council, and approve the company charter. This affords management and workers a nearly unconstrained opportunity to solidify their control over the enterprise. In many cases, particularly in the last few months, outsider shareholders have not even benefitted from the presence of their nominal representation as Privatization Commission members have only attended some constituents assemblies.

17. The procedure for nominations to the Board of Directors and the control council favor the incumbent management, despite the possibility of open nominations, because a committee created by the management draws up the original list and it prepares the material

which shareholders see. Anecdotal evidence suggests that interlocking directorates are pervasive, with general directors frequently serving on each other's boards. More importantly, the implications of having this dual governance structure must be examined closely. The control council is intended to act as an auditing body to protect shareholders' rights; as such, its role is somewhat redundant with that of the board, but it exercises some authority over the board, including the right of dismissal indirectly through shareholders). The control councils currently in place draw substantially from enterprise employees and government officials for their membership and their interests might not accord with those of outside shareholders.

18. Weak institutions of corporate governance are further damaged by the degree of discretion various bodies take in interpreting the law in the absence of credible enforcement. A prime example of this phenomenon is the composition of the control councils, which by law, are supposed to exclude insiders. In fact, many control councils have substantial employee representation. Since there is no authority identified to enforce this provision or penalties associated with its violation, there is no incentive for those who might prevent abuse to do so and no recourse for those with incentives, outsiders.

19. The authorities must, as a prerequisite, actively promote shareholder consolidation. The institution of a secondary market could be an important means of advancing corporate governance, while promoting capital infusion to the newly privatized enterprises. The authorities must therefore allow secondary market transactions for vouchers and/or shares to commence as soon as possible. But, as a first step, the authorities must draft and pass a *securities law* to create a proper regulatory and supervisory environment for capital market transactions to minimize potential incidence of fraud and/or mismanagement. It should be noted however that the introduction of secondary market trading is not a cure-all for the problems relating to corporate governance, capital infusion into the newly privatized entities, financial accountability, and managerial autonomy. There is a concomitant need to commercialize and corporatize these entities, aimed at increasing efficiency through the elimination of any state involvement in their commercial activities. Secondary trading must therefore be introduced, *pari passu*, with financial and managerial restructuring measures of the newly privatized enterprises.

Agricultural Issues

20. Many agricultural cooperatives and state farms continue to procure and sell their products as they did prior to privatization. Although the former arrangements have formally been abolished, many private farmers and herders continue to deal with the same official distributors. Marketing opportunities for the farmers and herders remain limited with only a handful of procurement agents. The process of fully integrating the privatized agricultural entities with private distribution channels needs to be encouraged.

21. Privatization of dairy farms and wholesale food distributors has not been effective to date. Dairy farms tend to be oversized, requiring centralized heating for huge barns and large amounts of fodder for cows, while the milking equipment is antiquated. Wholesale food distribution companies, characterized by excess storage capacity and large inventories

from state procurement, face reduced private demand with few people purchasing shares in the companies. The authorities need to develop a strategy for addressing the issue of nonviable enterprises.

Housing Privatization

22. The authorities are presently discussing ways to privatize 48,000 housing units in Ulaanbaatar valued at over Tug 6 billion. The Privatization Commission proposes to use the remaining Tug 2 billion of red vouchers for this purpose, augmented by cash sales and loans that they would administer. The issues surrounding the privatization process are complex with agreement needed on: (i) the procedures for privatization of units and common areas; (ii) the policies for unit and building valuation; (iii) payment policies for individual households; and (iv) policies addressing urban dwellers outside the housing units. On the one hand, if the housing stock is simply given away in the absence of proper policies regarding rents and the rights and duties of ownership, problems are likely to arise regarding payment for maintenance and utilities and the management of buildings. On the other hand, if incentives for privatization are weak or if the price is prohibitive, the Government may preempt the entire process.

Office Buildings

23. Increased sales of government office space and unfinished buildings are under consideration. Legislation on property, titles, and ownership rights is a requirement to facilitate property sales. Nevertheless, some buildings have been privatized, all sales have been to Mongolians or joint ventures. For a foreign firm to acquire a building, the firm must first establish a joint venture partnership with a local counterpart and the Mongolian party would then purchase the building on behalf of its foreign party. These arrangements should be simplified in order for sales of office space and buildings to continue in earnest.

Cash Privatization Receipts

24. The Privatization Commission has under its jurisdiction a Privatization Fund amassed from the sale of vouchers and cash sales from the small privatization process. The Commission is using these funds to finance the stock exchange (some Tug 80 million in 1993), to finance the current expenditures of the Commission, and to support the newly privatized enterprises through low interest loans. The loans, on average, are given for 10 years at an annual interest rate of 2%. Private businessmen would apply for these subsidized loans, which is granted by a committee, comprising Commission members and Government officials. The exact amount of the privatization fund, however, and the flow of funds into and out of the fund, is not transparent. In this connection, there is a need for the privatization fund, and any other funds derived from the sale of government-owned assets, to be made transparent and explicitly connected to government revenues.

STRUGGLING WITH THE SUPPLY RESPONSE: CASHMERE

1. Mongolia produces roughly a quarter of the world's cashmere, more than 90% of which is exported. Cashmere products are manufactured from the soft "down" that grows in the winter under the hair of Cashmere goats. Processing involves washing, dehairing, spinning, and then weaving or knitting this goat down. Until recently, only one factory in Mongolia had the capacity to dehair raw cashmere, the Gobi company. Gobi, considered a profitable enterprise, still is the dominant company, with capacity for 900 metric tons of raw cashmere and 400 tons of processed cashmere (Original installed capacity was 1,200 metric tons.) The Buyan company, a Gobi spinoff, recently privatized, can handle 110 tons of raw cashmere and process 50 tons. Two newer companies--an American firm, Amical, and the Mongolian Camel Wool Company, a joint venture between the Mongolian government (80%) and Amical (20%)--are presently adding processing capacity, but their total capacity is unlikely to exceed 300 tons of processed cashmere. So although its share of installed capacity is diminishing, Gobi still is the major player in the domestic cashmere market.

2. In 1989, raw cashmere was purchased from the agricultural sector for about \$12 per kilo (at the official exchange rate). In early 1993, the price paid by traders for raw cashmere was less than \$10 at the overvalued official exchange rate (when the rate was unified in May 1993, the exchange rate translated the Tugrik price paid earlier in the year to only about \$4). The international price of raw cashmere fluctuates. In 1992, the average unit value of raw cashmere exports was almost \$25 per kilo (\$15.40 to China). In 1993, the unit value fell sharply to \$17.60 (\$14.40 to China). But even at \$15 per kilo, exports of unprocessed cashmere typically command a comfortable margin. Cashmere exports have been a cash cow not only to the Gobi company but to its principal owner, the state.

3. Liberalization of trade in cashmere posed a threat to established interests. By offering a better price to herders, new entrants into the trading business were able to capture a large share of the trade in raw cashmere.^{1/} It is easy to see why herders were reluctant to accept the price of Tugrik 4,500-5,000 per kilo that Gobi was prepared to offer; private traders in early April were offering 60% more than this. Even when the world price of cashmere was rising in early 1994, the farmgate price, approaching \$20 per ton, put a tight squeeze on Mongolian cashmere processors. As Table 1 below shows, the trend in cashmere trade is toward exporting to China. An even stronger trend toward trade with China is evident with greasy and de-greased wool and hides and skins: in 1993 more than 90% of exports of these products went to China.

^{1/} Jerker Edstrom, studying a sample of 50 families in three Aimags in 1993, found that private traders offered a price at least as good as any other intermediary, usually better than the price offered by livestock companies, consumer co-operatives and *Somon* brokers, the traditional marketing channels. Prices ranged from Tugrik 1,300 to Tugrik 1,500 Tugrik per kilo, with traders in every case paying 1500. See "The Reform of Livestock Marketing in Post-Communist Mongolia", PALD Policy Options Paper, by J. Edstrom.

Table 1: Destination of Cashmere Exports
(metric tons)

| | China | Other | Total |
|------|-----------|------------|-------|
| 1992 | 354 (21%) | 1363 (79%) | 1717 |
| 1993 | 849 (59%) | 597 (41%) | 1446 |

Source: Ministry of Trade and Industry

4. Unwilling to compete in price for raw cashmere, the domestic cashmere processing sector faced the danger of defaulting on its commitments to provide raw and semi-processed (washed and dehaired) cashmere to traditional customers in Italy, Japan, the United States and other industrialized countries. It faced the prospect, too, of being unable to provide raw materials for its own cashmere apparel operations.

5. Figure 1A shows the exports of raw and semi-processed cashmere since 1985. After 1988, relatively stagnant patterns of trade began changing. After 1991, change exploded. This reflects exactly the liberalization and privatization processes in Mongolia. The changes were faster and greater than anybody had expected.

6. In mid-April 1994, an order was promulgated that required that all cashmere be washed and dehaired before export. The order also set a minimum export price. This amounted to a ban on private export activity, since only Gobi was prepared in Spring 1994 to dehair cashmere. Anyone who wished to export cashmere would have to go through the Gobi company. The price of cashmere promptly dropped to \$10-12 per kilo.

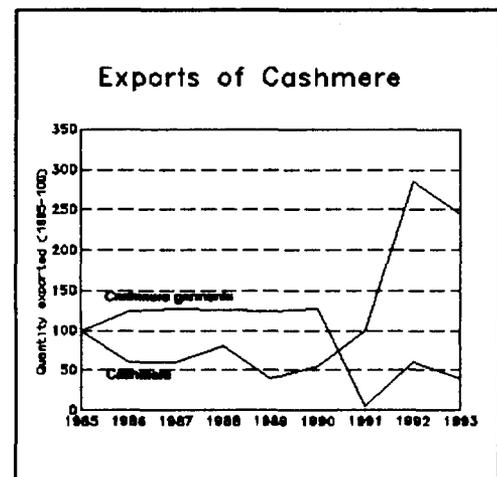


Figure 1A

Source: SSO

7. Of the various justifications given for the de-facto ban on private export activity, most were entirely spurious. Some officials argued that herders needed to be protected from private traders who offered them low prices and cheap Chinese goods. (Herders were free to deal with anyone; in fact, this claim stands the truth on its head: competition among private traders drove the price too high for the comfort of established interests.) Some argued that Mongolia's good reputation in the world cashmere industry would be spoiled if its high

quality cashmere were used in inferior Chinese products. (Again, anyone was free to offer a better net price for the cashmere than Chinese buyers; and if the Chinese degrade the cashmere after they purchase it, that is their problem, not Mongolia's.)

8. One justification that deserves more attention is the notion that Mongolia will gain by supporting activities that add value to the raw cashmere. There are two difficulties with this idea. First, in this particular case, very little value is added (at world prices) to cashmere by washing and dehairing it. These are simple, capital intensive processes. The capacity for dehairing presently being added by Amical and the Mongolian Camel Wool Company will increase dehairing capacity by about 75% but it will create fewer than 50 new jobs. It is true that Mongolia can expect better prices on the cashmere it ships elsewhere than on the cashmere it ships to China, but, assuming shipping costs do not absorb the price difference, this implies only that a company shipping to markets other than China should be prepared to offer herders a better price in a competitive market. Second, the dominant effect of an export tax or ban is not to add value but to shift value from the producers of inputs to the processors. The dramatic fall in the price of raw cashmere after the ban drives home this point. The export ban (or a tax) effectively protects value added in the processing activity, but it blunts the production incentive to raw material producers. To the degree that this leads to changes in resource allocation, it distorts the supply response. If the amount of cashmere produced in Mongolia were constant, the only effect of export controls would be to redistribute income away from herders to the owners of the processing activities. To the degree that cashmere production responds to price incentives, the supply response is choked off by the de-liberalization of exports.^{2/}

9. A key issue, then, is the supply response of Mongolian herders to the incentives provided by the rising price of raw cashmere. Here, Figure 2A sheds some light. Faced with meat prices depressed by export controls, cashmere offered owners of the newly privatized herds the clearest means to earn higher cash income. The response of herders has been dramatic. The rigid patterns of collectivized agriculture were broken as soon as herds were privatized. Other behavior, too (especially the rate of off-take) has changed sharply. Evidence all points to agents (herders and traders) who keep themselves well informed of their options and respond quickly to new opportunities. There can be little doubt that the trade restrictions on cashmere will slow economic growth.

^{2/}For a quantitative analysis of the impact on total export earnings from a raw cashmere export ban, see Takacs, W.E., The Economic Impact of Export Controls: An Application to Mongolian Cashmere and Romanian Wood Products. World Bank Policy Research Working Paper No. 1280, March 1994. For a set of supply elasticities for cashmere ranging between 0.5 and 1, Takacs shows a total export losses in the order of \$0.8 to 2.3 million. Her analysis is based on export licensing, for which export bans are an extreme case.

PUBLIC INVESTMENTS: SECTORAL ISSUES

The Energy Sector

1. Primary commercial energy resources are indigenous coal and imported petroleum products. Coal is used for generating electricity and heat. Petroleum products are used mainly for transportation and electricity generation in isolated systems. The country has large coal reserves of about 20 billion tons. Although a significant portion is high quality coal, only brown coal (lignite) adjacent to population centers is currently mined. The country also has considerable hydroelectric resources, but they remain undeveloped.
2. The cities of Ulaanbataar, Darkhan, Erdenet, and six aimaks in the central part of the country, where about half the population lives, are supplied from an interconnected grid, the Central Energy System (CES). CES' five thermal power stations are used for cogeneration of electricity and heat, with the latter distributed by district heating systems. Peak demand is supplied by electricity imports from the Russian Federation.^{1/} The operating characteristics of the CES system are provided in Table 1. Outside the CES system, one coal-fired thermal station at Choibalzan and 19 oil-fired power plants provide electricity to isolated communities. A smaller power grid in the western aimaks is under construction with the Government's own budgetary resources. District heating in remote locations is supplied by coal-fired boilers.
3. The development of the energy sector has been accorded the highest priority by the Government. The poor condition of most of Mongolia's power plants and coal mines and the possibility of a serious breakdown of power and heating facilities is of considerable concern because (a) a reliable source of power is an essential part of the physical infrastructure needed to support the economy; and (b) about half of Mongolia's population lives in urban areas and rely exclusively on central heating cogenerated in thermal power stations during the harsh winter months.^{2/}

^{1/} On May 2, the Power Industry Administration of the Inner Mongolia Autonomous Region and the Railways Administration of Mongolia signed a contract by which the former provides Zameen Uud City with 1,000 kW of electricity. Mongolia will make an investment of \$142,000 to pay for the investment in 10-kV power transmission line in the Chinese side. This constitutes an important economic and political event. (Reported by Neimenggu Ribao, retransmitted by the BBC on June 11, 1994).

^{2/} A recent accident in TES 3 shows the potential effect on prolonged interruptions in district heating in the main cities. On November 11 1993, TES 3 power station was severely damaged by explosions. As a result, the plant lost about 35 percent of its power capacity and the majority of its thermal production for about two weeks until emergency repairs were completed. The loss of heat and industrial steam threatened the livelihoods of a large portion of Ulaanbataar. During this period the temperature inside some tenement blocks dropped below zero.

Table 1: CENTRAL ENERGY SYSTEM: INSTALLED CAPACITY OF CES PLANTS

| | Boiler | Turbine | | District | Heating | Stem | |
|--------------|-------------|------------|-------------|-------------|--------------|------------|-------------|
| Power | Installed | Installed | % | Installed | % | Installed | % |
| Ulaanbaatar | | | | | | | |
| TES 2 | 80 | 24 | 3.0 | 52 | 2.1 | 31 | 5.4 |
| TES 3 | 1448 | 148 | 18.8 | 715 | 28.6 | 200 | 35.0 |
| TES 4 | 2450 | 540 | 68.5 | 1232 | 49.3 | 180 | 31.5 |
| Sub-Total | 3978 | 712 | 90.4 | 1999 | 80.0 | 411 | 72.0 |
| Darkhan | 477 | 48 | 6.1 | 274 | 11.0 | 80 | 14.0 |
| Erdenet | 318 | 28 | 3.6 | 226 | 9.0 | 80 | 14.0 |
| TOTAL | 4773 | 788 | 100. | 2499 | 100.0 | 571 | 100. |

Source: Mongolia Power Rehabilitation Project, Project Brief, ADB, 1994.

4. Consistent time series of electricity consumption are not available because of changes in the classification of consumers over time. Table 2 shows breaks down demand by category of consumers in 1992. The industrial sector (including copper) consumes roughly 90 percent of the electricity supplied while residential consumers and the public sector (municipalities, Government) consume the remaining 10 percent. As for district heating, residential consumers account for 43 percent of hot water consumption. The very high share of electricity consumed by industries shows that emphasis would need to be focused on the industrial sector when considering any demand management programs, be it technical or economical (i.e., tariff adjustments). There are, nonetheless, serious technical constraints in implementing demand management programs at the level of residential consumers because most urban households live in Government owned apartments which are not individually equipped with electricity and hot water meters. Also, the price elasticity of demand in the copper industry, which accounts for 27 percent of CES electricity sales, is probably quite inelastic, which further limits the effects of demand management measures.

Table 3: ENERGY CONSUMPTION
(%)

| Category | Heat | Electricity |
|---------------|------|-------------|
| Residential | 42% | 4% |
| Public/Others | 30% | 7% |
| Industrial | 28% | 89% |
| Total | 100% | 100% |

Source: Power Rehabilitation Project, Project Brief, ADB, 1994.

5. **Coal Mining.** The primary source of electrical energy in Mongolia is coal, produced in four out of the country's 16 coal mines. Table 4 summarizes the main features of the four most important operating coal mines in Mongolia. The Nalaih underground mine produced superior quality coal for export and for Power TES 4. However, the mine has virtually ceased operations because of technical problems, the depletion of reserves, and the high cost of production. *Sharyn Gol* and *Baga Nuur* mines are the largest producers but are beset with severe operational problems, which has reduced their output. The main problem stems from the insufficient removal of overburden in recent years because of the reliance on an obsolete rail haulage system. As a result, the availability of good coal for extraction has been reduced to dangerously low levels, and the coal that is produced is of low quality. Another technical problem is a shortage of coal handling capacity at the mines. As a result, a large share of production by-passes treatment facilities and arrives untreated and uncrushed at the power plants. Rock contamination of about 14 percent of the coal shipments reduces operational efficiency through out the entire energy chain, increasing transport costs, seriously damaging boilers, and causing unnecessary wear and tear to processing equipment. Primary crushing of coal at power plants creates excessive quantities of coal dust in the power plants, with the risk of dangerous explosions, such as the one which occurred at TES 3 in November 1993. The low quality of coal produced requires the power plants to use excessive quantities of imported heavy oil (mazut) to assist combustion.

6. **Tariffs.** Significant price increases have been implemented in the energy sector to reduce subsidies and to give consumers market signals to promote energy conservation. Under the previous regime prices were set by administrative fiat and the pricing mechanism was not used to allocate resources or to encourage efficiency and conservation. Thus, for thirty years prior to 1990, electricity tariffs did not increase. Since 1990, substantial price adjustments have been introduced in the energy sector. Petroleum prices now reflect international prices. Following an adjustment in July 1993, coal prices are now 300 to 400 percent higher in US dollars terms than in mid-1991. Power and heat tariffs have also been adjusted to reflect inflation and increased coal prices and now cover operating costs. Power tariffs are now 370 percent higher in US dollar terms than in 1991. The present average cost

Table 4: PROFILE OF THE MAIN COAL MINES

| Name of Mine | Type of | Calorific | Ash | Annual | Client |
|--------------|---------|-----------|-----------|-------------|-----------|
| | Fuel | Content | Content | Production | Power |
| | | (kcal/kg) | (percent) | (1,000 t/y) | Plant |
| Sharyn Gol | Lignite | 3,900 | 20.0% | 1,700 | Erdenet |
| Baga Nuur | Lignite | 3,500 | 18.0% | 6,000 | TES 2,3,4 |
| Nalaih | Coal | 3,500 | 16.5% | 300 | Export |
| Shivee Ovoo | Lignite | 3,200 | 9.8% | 500 | TES 2,3,4 |
| Shivee Ovoo | | 3,500 | | 2,000 | Export |

Source: Ministry of Mines, Geology and Energy.

of electricity in Mongolia is 3.3 cents US per Kwh, compared to an average 6.3 cents US in Asia and 5.1 cents for imported peak power from Russia. Peak tariffs, five times higher than base tariffs, were recently introduced. The prices of heating and steam produced by cogeneration have been maintained in US dollar terms.

7. In recent years, the electricity production system within the CES has been beset by operational problems which have reached crisis proportions during the winter of 1993/94. The main problems are:

- (a) In general, the accelerated running down of capital assets (boilers, generators, conveyors, coal pulverizers, ash removal systems, etc...) due to insufficient maintenance and spare parts;
- (b) Insufficient supply and poor quality of coal delivered to the power plants. There is a mismatch between the technology of the boilers and the coal that is supplied. For instance, TES 3 was designed to operate on high BTU coal from the Sharyn Gol mine. Inferior coal from other mines cannot be substituted without damage to boilers. The high level of humidity of the coal provided to the power sector, because of inadequate dewatering systems in the mines, reduces the thermal qualities of the coal. The high rock content of untreated coal accelerates the deterioration of equipment (boilers, conveyors, pulverizers, ash removal systems) and effectively reduces production capacity

below potential. Because of insufficient coal treatment capacity at the mines, power plants need to use their own crushing equipment for primary crushing of coal, which damages the equipment and increases the quantity of coal dust in the power plants, with a resultant danger of explosions; and

- (c) Technical problems and obsolescence specific to each power plant. For instance, the plant in Darkhan is old and is located outside the city. The cogeneration plant for district heating is inefficient, largely due to heating losses in the distribution system. TES 3 in Ulaanbataar is old and will need to be replaced within 10 years. TES 4, the largest and newest plant, was equipped with faulty boilers and control systems.

8. As a result, production capacity relative to potential has been seriously impaired. The available generating capacity is little over half the installed capacity of 788 MW: the CES is unable to (reliably) supply the present power demand of 462 MW and must resort to imports from Russia. The CES thermal generation capacity for district heating has also been adversely affected. With the power plants operating at only 60 percent of rated capacity, there have been problems in distributing sufficient heat during the coldest periods.

9. In spite of these difficulties, according to the CES' recent income statement summarized in Table in 5, electricity production in Mongolia remains profitable. However, the statement most likely does not take into account the real cost of coal (including the coal transport subsidy provided by Mongolia Railways), understates the extent to which donors are keeping the power plants operating, and understates depreciation expenses, which should be revalued in light of recent devaluations. As in all other public enterprises, it is a matter of concern that financial statements should reflect the financial reality of the public enterprise sector more accurately.

10. The Government's strategy in the energy sector will be articulated after the electricity and coal production master plans are completed. The preparation of both plans is being launched with the assistance of ADB^{3/} and the Japanese Government.^{4/} A number of studies are also being carried out in the energy sector which will help clarify sector strategies: (a) energy efficiency and conservation^{5/}; (b) CES Institutional and Tariff

^{3/} Power System Master Plan Study, recently approved for \$595,000. Final report anticipated by mid-1995. The World Bank will undertake an Energy Survey which will be complementary to ADB's Master Plan Study.

^{4/} Coal sector master plan financed by a grant from the Japanese Government and expected to be completed in mid-1995.

^{5/} Energy Audit, Efficiency and Conservation Study, financed by ADB and approved in September 1992 for \$407,500. The study has been initiated and a draft final report is being reviewed.

Table 5: INCOME STATEMENT OF THE CENTRAL ENERGY SYSTEM, 1988-93
(Tg millions)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------------|--------------|--------------|--------------|---------------|---------------|----------------|
| Energy Sales (GWh) | 2,340 | 2,410 | 2,257 | 1,971 | 1,858 | 1,701 |
| Heat Sales (TCal) | 5,512 | 5,474 | 5,565 | 5,348 | 5,169 | 4,767 |
| Average electricity revenue (Tug/kWh) | 0.2 | 0.2 | 0.2 | 0.4 | 1 | 8.5 |
| Revenues | | | | | | |
| Electricity sales | 508.7 | 479.3 | 452.8 | 755.8 | 1826.3 | 14403.5 |
| Heat sales | 296.5 | 311.1 | 318.1 | 465.1 | 904.3 | 3078.8 |
| Others | 8.1 | 23.9 | 37.0 | 100.2 | | |
| Total Revenues | 805.2 | 790.4 | 779.0 | 1244.8 | 2767.6 | 17582.5 |
| Operating Expenses | | | | | | |
| Coal | 197.4 | 183.8 | 185.0 | 379.5 | 877.8 | 8039.0 |
| Fuel oil | 21.3 | 19.2 | 30.2 | 43.2 | 38.5 | 983.7 |
| Purchased power | 16.2 | 26.4 | 31.9 | 17.3 | 178.4 | 4811.0 |
| Own use of electricity | 9.8 | 9.0 | 9.4 | 18.4 | 373.7 | 548.6 |
| Water | 13.7 | 13.9 | 14.4 | 9.1 | 45.4 | 217.0 |
| Maintenance materials | 5.6 | 3.5 | 5.8 | 10.8 | 121.8 | 309.1 |
| Wages and salaries | 32.1 | 27.4 | 33.4 | 140.2 | 278.0 | 697.7 |
| Technical personnel | 37.6 | 28.8 | 34.3 | 58.0 | 62.5 | 376.1 |
| Administration | 12.4 | 10.1 | 10.9 | 23.4 | 39.0 | 144.9 |
| Depreciation | 219.5 | 210.6 | 215.9 | 251.0 | 278.0 | 743.0 |
| Others | | | | | | |
| Total Operating Expenses | 565.6 | 532.7 | 571.2 | 950.9 | 2293.1 | 16870.1 |
| Nonoperating Income (net) | -50.4 | 2.6 | -47.5 | | | -151.0 |
| Income taxes | 75.7 | 104.1 | 64.1 | 119.7 | 222.8 | 224.6 |
| Net Income | 113.5 | 156.2 | 96.2 | 174.2 | 251.7 | 336.8 |

Source: Power Rehabilitation Project, Project Brief, ADB, 1994.

Study^{6/}; (c) coal pricing study which is part of the IDA-financed Mongolia: Economic Transition Support (METS) project; and (d) the Egiin Gol Hydropower Project detailed design study.^{7/} Even though detailed options have not yet been developed, the main components of a short and medium-term strategy could be broadly identified as follows:

- (a) **in the short term**, to overcome the crisis in energy production by stabilizing electricity and cogeneration of steam and hot water throughout the CES system with the assistance of a number of emergency programs; and

^{6/} Financed by ADB, approved in December 1993 for \$500,000.

^{7/} ADB TA.

- (b) in the **medium term** (1995-98), rehabilitate electricity and heat generation in existing plants and the production of coal in existing mines. Included in this scenario are (i) prolonging the operation of TES 3 by about 10 years through partial rehabilitation, (ii) partially or totally rehabilitating TES 4, (iii) rehabilitating the power and heating plants at Darkhan and Erdenet, and (iv) improving the production and quality of coal delivered to the power plants. This strategy assumes that new electricity production capacity will come on stream at the end of the present decade.

11. The short-term emergency program totalling over \$50 million to stabilize energy production has been under implementation since 1992 with USAID, German, Japanese and IDA assistance. USAID's \$35 million Energy Sector Project consists of provision of spares and consumables to TES 3, to the plant at Darkhan, and to the coal mines. It is expected to be completed in mid-1995. Germany is working in the rehabilitation of three out of the nine boilers at Darkhan with a DM 10 million (\$6.5 million equivalent) grant. Japan is currently funding the rehabilitation of TES 4 (\$2.9 million in 1993 and \$3.5 million in 1994). The assistance of Japan to TES 4 addresses problems related to environmental control, coal handling and pulverizing equipment, which are affecting the overall reliability of the thermal plant. IDA has recently allocated \$5 million to finance mining equipment and undertake a coal pricing study.^{8/}

12. The medium-term program would consist of:

- (a) **Partially Rehabilitating TES 3.** This would be accomplished by rehabilitating the plant's seven high pressure boilers and improving control systems and plant operations. TES 3's old low pressure boilers would not be rehabilitated. It is expected that the program would increase total utilization of the plant from 26 to 45 percent for electricity generation and from 19 to 35 percent for heat and steam generation. Starting in 1995, ADB will assist to rehabilitate 6 of 7 boilers at an estimated cost of US\$ 35 million. Cofinancing to rehabilitate the seventh boiler and to support a program of energy conservation is being solicited;
- (b) **Partially or Totally Rehabilitating TES 4.** The MEGM estimates that the plant could be kept into operation with annual injections of \$10 million per year for spare parts. However, this would not permit the full restoration of capacity which would require, among other investments, the replacement of faulty boilers. The Ministry of Energy Geology and Mines (MEGM) estimates the cost of fully rehabilitating TES 4 at about \$120 million. There is a need for a rapid evaluation of the main alternatives, to avoid wasting resources on a suboptimal rehabilitation program. The present assumption is that full rehabilitation of TES 4 would not be undertaken until 1997, given the time needed to assess the feasibility of such a program and initiate it;

^{8/} This assistance is part of the Mongolia: Economic Transition Support Credit (METS).

- (c) **Rehabilitating the Thermal Plant at Darkhan.** The ongoing program, supported by the German Government will achieve a partial rehabilitation of the electricity generating portion of the plant. A major problem is the inefficient heat cogeneration facility at Darkhan: the distance from the city is resulting in high heat losses. Additional requirements to complete the rehabilitation program need to be assessed. As further German Donor assistance to Darkhan is uncertain, the Government has requested assistance from the CEC to evaluate rehabilitation requirements; and
- (d) **Coal Mining.** The proposed ADB Energy Project will also invest in the modernization of the coal mines through the provision of coal handling equipment at the Baga Nuur, Sharyn Gol and Shivee Ovoo mines, for a total \$2.6 million. This equipment will allow the mines to undertake primary crushing of coal at the mine site and substantially reduce the rock content in the coal being supplied to the thermal plants. However, the main constraint to increasing the supply of quality coal remains insufficient removal of overburden at the Sharin Gol and Baga Nuur mines due to reliance on an obsolete rail earth haulage system. The full rehabilitation of the two mines, including the replacement of the rail haulage system with modern mobile earth moving equipment could cost about \$30 million (according to USAID-financed technical experts). A variant of a medium-term program would be to fully develop the Shivee Ovoo mine to a production of 2.0 million tons per year for an estimated investment cost of about \$40-50 million.^{9/} These two scenarios will be studied by Japanese consultants in the context of a Coal Sector Master Plan Study, which should be available by mid-1995. Given the time required to secure donor interest and initiate an investment program, the PSIP includes a provision of about \$4.0 million per year in 1995 and 1996 for spare parts and projects the start-up of an investment program in 1997, which would contribute to rehabilitate and/or develop coal mining capacity.

13. In addition to the program outlined above, the PSIP contains a number of investments in isolated energy production facilities and in the western power grid. The rehabilitation of three power plants managed by the aimaks is being considered. A 24 MW coal-fired plant at Choibalzan needs to be rehabilitated. The CEC has been asked to study this project. Oil-fired plants at Altaii (8 MW) and Dalandzadgad (7 MW) are being considered for conversion to coal. However, in both these sites, the coal supply is far from the power plants (Altaii-230 km and Dalandzadgad-90 km), which would undermine the economic viability of such projects. The establishment of the western aimaks power grid is ongoing. A 110 kV line has been built which connects Ulaangom to the Russian electricity grid. The objective for 1994 is to connect Olgii with a 110 kV line and in 1996, to build a 110 Kv line to Mingad followed by a 35 Kv line to Hovd. The program is being financed by the Government's own investment budget. The Government of Russia is providing US\$ 13 million assistance for

^{9/} Estimate provided by USAID consultant.

district heating installation in isolated communities. This program is expected to be completed in mid-1995. Table 6 summarizes the 1994-97 PSIP for the energy sector.

Table 6: INDICATIVE INVESTMENTS IN THE ENERGY SECTOR
(\$ million)

| | 1994 | 1995 | 1996 | 1997 |
|---|------|------|------|------|
| Coal Mining | 4.0 | 6.0 | 7.6 | 10.0 |
| Electricity Production CES | 22.6 | 26.4 | 34.6 | 31.1 |
| TES 3 | 7.0 | 9.4 | 17.6 | 14.1 |
| TES 4 | 8.8 | 10.0 | 10.0 | 10.0 |
| Darkhan | 5.7 | 7.0 | 7.0 | 7.0 |
| Other | 1.1 | 0.0 | 0.0 | 0.0 |
| Isolated Power Plants | 0.0 | 5.0 | 10.0 | 10.0 |
| Western Grid | 5.0 | 0.0 | 0.0 | 0.0 |
| Egiin Gol Hydropower | 2.4 | 0.0 | 0.0 | 0.0 |
| Other Energy/Heating | 10.0 | 3.0 | 0.0 | 0.0 |
| Petroleum Distribution | 2.5 | 0.5 | 0.0 | 0.0 |
| Total | 46.5 | 40.9 | 52.2 | 51.1 |
| of Which: to be committed (%) <u>/a</u> | 0.0 | 53.8 | 59.4 | 72.5 |

/a In some cases indicated for financing by donors, but not formally committed.

Source: Government of Mongolia, Donors' Information.

14. Long-term energy expansion options are unclear at this juncture. Mongolia's plentiful coal resources, including a major deposit at Tavan Tolgoi, obviously provides the foundation for continued use of coal-fired plants to supply Mongolia's base load requirements. A major issue is the absence of a secure and cost-effective source of electricity during peak times. The proposed Egiin Gol hydroelectric dam, with an installed capacity of 220 MW at a cost estimated at \$225 million, is considered by the Government as the optimal long-term solution to meet demand during peak times.

15. A detailed feasibility study of the project, financed by the ADB, is currently underway. Clearly, given the size and uncertainties associated with hydroelectric development in Mongolia, there is a need to consider all feasible alternative proposals for meeting the country's peak power demand. The main alternatives would include (a) equipping the country with energy efficient oil-fired plants; or (b) reinforcing the interconnection with the Russian power grid, perhaps as part of a program by Russia to export electricity through Mongolia to northern China. This alternative was discussed with Mongolian authorities during the annual trade talks with Russia.

Transport and Communications

16. Mongolia's transport system remains seriously inadequate, considering the vastness of the territory (1.6 million km²) and the demand for transport services. The structure and organization of the transport sector reflect historical trade patterns, the past emphasis on concentrating industry in the main cities, the relative importance of heavy minerals and coal in transport demand, the historical lack of competition within each transport mode, and the heavy subsidization of domestic passenger and coal transport. As a result, the transport network focuses on the three largest cities (Ulaanbaatar, Darkhan and Erdenet) and on two border towns (Suhbaatar, in the North, and Zameen-Uud, in the South); the road infrastructure is primitive in most regions and relatively neglected; competition in trucking and busing is incipient; unrealistic tariffs have undermined the financial position of sector enterprises.

17. The sector has been severely affected by the recession and lack of resources.^{10/} Since the end of the 1980s, the recession in Mongolia and neighboring Russian Federation and the decline in coal production^{11/} have caused a sharp fall in demand for transport services (between 20 and 50 percent, depending on the subsector). Moreover, the deteriorating financial position of sector agencies and enterprises have reduced maintenance to very low levels and jeopardized operations.

18. The key sectoral constraints are (a) low availability of equipment, shortages of spare parts, poor repair facilities, poor condition of roads, insufficient rail transshipment facilities at the Chinese border, poor condition of the international airport; and (b) institutional and policy constraints including limited experience by Government agencies in policy setting, planning and resource mobilization; limited experience by sector enterprises in commercial and financial aspects of operations; lack of experience in competitive bidding (by agencies and prospective competitors in the country); high share of Government participation in the

^{10/} Until the liberalization of the exchange market, this shortage of resources assumed the form of scarcity in foreign exchange.

^{11/} Coal delivery to power stations by rail, about 5 million tons per year, accounts for more than 40 percent of the country's freight ton-km. See World Bank, *Transport Rehabilitation Project, Staff Appraisal Report*, 1994.

trucking sector; high level of cross-subsidies in coal transport and direct budget subsidies of urban passenger transport.

19. Transport policy reforms pursued by the Government reflect the need to overcome these constraints. These give priority to reducing price distortions and privatizing, when possible, commercial activities. Thus, fuel prices have been adjusted to import parities and urban transport tariffs were raised, although they remain far below operating costs. In addition, trucking companies are being privatized^{12/}; the Government has reduced its role in the allocation of traffic among trucking companies and controls over prices on intercity trucking services. In spite of these reforms, the financial position of enterprises providing public transport services continues to deteriorate because of the relatively slow pace of adjustment of transport tariffs.^{13/} Financial deterioration is particularly acute in the rail and urban passenger transport subsectors.

20. During the 1994-97 period, the Government, with financial assistance from OECF, ADB and IDA, plans to overcome some of the capacity constraints and help restore transport capacity to former levels. It is clear that unless there is substantial progress in cost recovery to fully finance operations and maintenance and, progressively, to provide for new investment in equipment and infrastructure, the sector will continue to depend on massive foreign assistance.

Rail Transport

21. Mongolia Railways, a joint venture with the Russian rail system, carries 70 percent of the country's freight and plays a key economic role: (a) it is the country's main link to Russia, China and, through, them, other countries; (b) it connects Mongolia's three largest cities; and (c) almost half of the tonnage carried is coal for the power plants in Ulaanbaatar, which, in turn, provide two thirds of the country's energy for industrial operations and for heating. The bulk of Mongolia's exports are transported by rail.

22. Transported volumes dropped from 5.1 billion ton-km in 1990 to 3.0 billion ton-km in 1993. At the same time, fuel prices doubled in 1993 and services and inputs are no longer cheaply available in Russia.^{14/} Tariffs have not kept in line with cost increases. Operating revenues per converted ton-km declined from US dollars 10.1 in 1992 to 8.649 in

^{12/} About 70 percent of the truckers' fleet belongs to companies that are either fully privatized or have a private sector participation exceeding 50 percent of equity.

^{13/} Private transport services are not subject to price controls.

^{14/} For instance, according to a recent agreement with Russia on daily lease charges for rail cars, they will be raised sixfold by 1998, thereby driving up the total cost of leasing from \$3 million to \$20 million.

1993. Working expenses per converted ton-km, on the other hand, increased from \$5.4 to 8.5.^{15/}

23. **Financial Prospects and Investments in Railways.** The consequences of declining demand and failure to adjust to rapidly rising cost have been a severe erosion of the railway's profitability and, therefore, its ability to finance current operations and maintain capital assets. The railway's overall profitability plunged from plus 35 percent in 1991 to minus 49 percent in 1993. More than half of essential maintenance and repairs since 1990 have been postponed. In 1993, about 60 percent of locomotives were inoperative and repairs and renewal of tracks, sleepers and other infrastructure have lagged behind. Payment arrears to the Russian railway system were mounting. MR's financial position was also compromised because of the payments arrears by the coal mines (\$1.2 million at end 1991; \$10.0 million at end-1992) and, since end-1993, by the Central Energy System (CES) (\$2.4 million).

24. The rehabilitation of the railway and its restoration to financial viability are very high priorities for the 1994-97 period. External assistance from Japan and the World Bank may contribute to overcome the backlog of deferred maintenance and help improve equipment and infrastructure where there are critical bottlenecks. However, restoring the financial health of MR will depend on the speed at which tariffs can be adjusted and operational efficiency improved.

25. The main structural distortions in tariff and costs are (a) *coal transport* tariffs. MR does not recover the costs of coal transport. The operating deficit for 1994 may reach \$6.0 million. A coal transport study, which is part of the World Bank's Transport project, will clarify the actual costs of transporting coal in Mongolia and therefore provide a base for evaluating the amount of the tariff adjustment to be made. Meanwhile, some initial adjustments should be implemented; and, (b) *subsidies* previously accorded by the Russian rail system which were not incorporated in costs and tariffs. All subsidies except charges for the leasing of rolling stock have been eliminated. A recently negotiated leasing schedule will increase rates sixfold between 1993 and 1998. This is also in line with rates which have recently been negotiated between the Russian railway system and its partners in former Soviet Republics. This translates into an increase in the cost of leasing from \$3 million in 1992 to \$20 million in 1998. A study, supported by the World Bank, will assess the competitiveness of the new rate structure in light of international practices.

26. Mongolia Railways' financial position and prospects is provided in Table 7. The underlying assumptions are:

- (a) the investment program supported by Japan and the World Bank, combined with an enhanced maintenance program undertaken by Mongolian Railways, will help ease the railway's transport capacity constraints. Thus the railway will be able to service the rising demand for transport;

^{15/} Estimates obtained from World Bank, *Transport Rehabilitation Project, Staff Appraisal Report*, 1994.

Table 7: MONGOLIAN RAILWAYS, SUMMARY FINANCIAL POSITION, 1993-97
(In millions of US Dollars)

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|--|--------|----------|----------|----------|----------|----------|
| | Actual | Estimate | Forecast | Forecast | Forecast | Forecast |
| Transported volumes (millions converted ton-km) | 3.4 | 3.6 | 3.8 | 4.4 | 4.7 | 5.1 |
| Operating revenue | 34.6 | 31.3 | 32.9 | 38.4 | 41.4 | 44.8 |
| Working expenses | 18.4 | 30.9 | 35.2 | 40.2 | 42.8 | 46.1 |
| of which : fuel | 10.4 | 22.6 | 24.0 | 28.2 | 30.7 | 33.6 |
| : maintenance | 2.2 | 2.3 | 5.0 | 5.7 | 5.7 | 5.9 |
| Capital-related expenses | 5.6 | 6.5 | 6.9 | 10.1 | 15.4 | 24.4 |
| of which : wagon rentals | 2.4 | 3.3 | 3.4 | 6.4 | 11.5 | 20.3 |
| Operating income | 10.6 | -6.1 | -9.3 | -12.0 | -16.9 | -25.7 |
| Non-operating income less | -0.9 | -0.9 | -0.3 | 0.3 | 0.8 | 1.5 |
| Interest expenses | | | 0.5 | 0.3 | 0.2 | |
| Taxes | | | | | | |
| Net Income | 9.6 | -6.9 | -10.0 | -12.0 | -16.1 | -24.1 |
| Memo Items: | | | | | | |
| Coal transport subsidy | | 5.5 | 6.0 | 6.3 | 6.6 | 6.9 |
| Receivables (beg. of year) | 1.2 | 10.6 | | | | |
| Payables (beg. of year) | 6.1 | 7.8 | | | | |
| Freight tariff adjustment needed to eliminate deficit | | | | 30.0 | 10.0 | 16.0 |

Sources: World Bank, Transport Rehabilitation Project, Staff Appraisal Report, 1994.

- (b) improvements will occur in operational efficiency and labor productivity. As a result, unit costs will be contained and the wage bill, relative to gross income will decrease; and
- (c) in the table, tariffs in US dollars are assumed to increase slightly at 5 percent per year till 1995 and, thereafter, 1.5 percent per year, following the expected signature of an international agreement on transit trade. However, they do not take into account the additional tariff increases that would be required to eliminate the operating deficit on the transport of coal and sharply escalating leasing charges by the Russian railway system.

27. The operational deficit of Mongolian Railways is projected to rise from \$3.7 to \$20 million in 1998. Eliminating this deficit through tariff adjustments would require major increases. For instance, assuming that all accumulated losses and net arrears owed to Mongolia Railways are covered by the Government until end 1994 (e.e. the Railway Authority will not have to borrow to finance past losses and current operations), a 30 percent adjustment of average freight rates would be needed to cover expected losses in 1995. Additional adjustments of 10 percent in 1996 and 16 percent in 1997 would also be required to cope with the rising operational deficit, caused largely, by rising leasing charges. Even if these adjustments were made, the railway's working capital position would remain critical and no progress would have been made to increase reserves to allow for equipment replacements in the future.

28. The *PSIP* for the rail subsector aims at consolidating transport capacity, and overcoming critical bottlenecks. It consists of four complementary operations totalling about \$100 millions over the 1994-97 period:

- (a) the construction of a new transit facility at Zameen-uud, on the Mongolian side of the border with China for about \$10 million. This project will help speed up the transshipment of freight to and from the Chinese railway, which is becoming Mongolia's main link to the rest of the world.¹ The project, which is supported by a Government of Japan grant, should be completed in 1996. Another investment by IDA at the Zameen-uud border station will consist of building a fuel transshipment facility to enable Mongolia to diversify its sources of petroleum products;
- (b) a major equipment purchase program (totalling \$71 millions), supported by two OECF (Japan) credits will strengthen the railway's infrastructure (track rehabilitation, signaling equipment), boost transport capacity through the

¹ However, to the extent that the lack of Chinese wagons sent to the border are also a bottleneck, this transshipment facility will solve part of the problem, at best.

purchase of engines and rolling stock and modernize management, through computerization. The program, in two tranches, is supported by two OECF credits, which are partially untied to procurement in Japan. They will allow Mongolian Railways to purchase engines and cars from traditional sources;

- (c) a US\$ 16 million program to procure spare parts, modernize the fleet of coal boxcars, strengthen maintenance workshops and improve subsector and enterprise management financed by IDA (World Bank); and
- (d) a small plant to produce ferro-cement sleepers for \$3.6 million which does not have an identified source of financing yet.²

Urban Transport

29. This section discusses urban passenger transport in Ulaanbaatar only. Darkhan and Erdenet are relatively well served by urban transport services. The main issue in urban transport is rehabilitation of transport capacity, restoration of the sector's financial viability and partial privatization of urban bus services.

30. A striking characteristic of urban passenger transport in Mongolia is its overwhelming dependence on the public sector. Private transport by individuals (taxis, cars, bicycles) is little developed. Private bus services are now provided. The extreme winter temperatures discourage the use of light vehicles such as bicycles. While there are possibilities of introducing competition in the industry and of encouraging the use of individual means of transport, the speed of adjustment may be limited by political constraints in adjusting tariffs to realistic levels quickly. Nevertheless, the industry will require significant reform and restructuring to make it more efficient and market-oriented. The reform process is likely to require (a) the development of operations under full cost-recovery principles; and, (b) some degree of industry deregulation and the encouragement of competition between operators.

31. The urban transport system in Ulaanbaatar serves a city of 630,000 inhabitants, where 60 percent of the population are in the economically active ages of 15 to 60 years. The average daily demand is estimated at some 693,000 passenger trips per day. This would normally require about 580 standard buses or trolley-buses in peak service daily.³ The existing urban passenger fleet totals 432 buses and trolley-buses, shared among three

² Mongolia Railways considers this a high priority project because of the need to replace wooden sleepers which rot away in four to five years. However, because this technology requires imported inputs, the Railway could consider creating a joint venture with a foreign partner.

³ Assuming normal passenger loading levels of 1,200 passenger-trips per day.

companies, one of which is exclusively equipped with 150 trolley-buses. Average fleet availability is 60 percent, compared to levels of 80-85 percent in reasonably efficient urban transport systems. Given its relatively low age profile (4 years), the fleet has still a significant potential operating life (the experience of similar urban transport systems in the Russian Republic is 10-12 years). Insufficient numbers of vehicles combined with low availabilities have led to excessive overloading of vehicles (levels of 2,500 passengers per vehicle per day are common).

32. **Subsector Management.** The Department of Urban Transport (DUT) of Ulaanbaatar Municipality has administrative responsibility over all public transport in the city. While DUT works under the vice-mayor, in practice it works under the strategic direction of the road transport division of MID. DUT has little financial autonomy, investment decisions are made by MID and funding, including annual subsidies of over \$2 million, are provided by the Ministry of Finance. There are three companies (two bus companies and one trolley-bus company) of which the head reports to the head of DUT. Route responsibilities are assigned to each company on a zonal basis: there are two separate bus zones and trolley-bus routes are based on a central corridor with some radial spurs to adjacent high traffic areas.

33. **Tariffs.** Tariffs are controlled by DUT and are set following Central Government (Council of Ministers) approval. Tariffs were raised in July 1993 from Tug 3 to Tug 10. A new increase to Tg 30 took place in July 1994. They are flat rates, irrespective of distance travelled.

34. **Major Issues.** The major operational and institutional issues in the urban transport sector are summarized below.

- (a) **Operational.** Accelerated decline of capacity due to shortage of spare parts; low fares may be contributing to overuse of the services; deteriorating quality of services due to bus overloading (up to 100 percent during peak periods);
- (b) **Institutional.** Overly centralized structure. Authority needs to be devolved to the operating companies while DUT establishes operational targets and overall reporting systems; shortages of managerial and operational skills.

35. **Financial Position and Prospects.** Table 5.10 provides a consolidated income statement for the three urban transport companies over the period, 1990 to 1992. It shows that the urban transport companies are incurring substantial deficits which are partly compensated by budgetary subsidies. The trolley-bus company reduced its deficit in recent years although the electricity it uses is subsidized.

36. **Investments in Urban Transport.** An IDA-financed Transport Sector Project aims at reversing the decline in transport capacity of the urban passenger fleet in Ulaanbaatar, by increasing the availability of the existing fleet and financing essential fleet renewals, through

Table 8: INCOME STATEMENT FOR THE BUS AND TROLLEYBUS COMPANIES
(In Thousands of Tg of 1993)

| | Actuals | Actuals | Actuals |
|-------------------------------|---------|---------|---------|
| | 1990 | 1991 | 1992 |
| Traffic in '000 passenger/km | 580.5 | 635.8 | 699.4 |
| Operating revenue | 79.7 | 172.4 | 273.7 |
| Operating expenditure | 104.9 | 211.8 | 402.5 |
| Operating Income | -25.2 | -39.4 | -128.8 |
| Non-operating expenses | 5.2 | 0.9 | 0.7 |
| Net income: in Tugriks | -30.4 | -40.3 | -129.5 |
| In US dollars | -8.5 | -1.0 | -3.2 |
| Memo Items (%): | | | |
| Profit margins: bus companies | -39.0 | -29.0 | -67.0 |
| : Trolleybus company | -13.0 | -8.0 | 0.0 |

Sources: World Bank, Transport Rehabilitation Project, Staff Appraisal Report, 1994.

the provision of spare parts and the purchase of 60 new vehicles. As a result, 144 vehicles would be added to the fleet at peak times, thereby improving services and reducing vehicle loading to a safer 1,800 passengers per vehicle per day. The Government is committed to phased increases in tariffs, although the specifics of adjustments have yet to be determined during the project period. The total project cost is US \$ 11 millions. Additional projects may need to be identified as part of a more integrated urban improvement.

Roads

37. The roads infrastructure subsector in Mongolia consists of:

- (c) Thirty designated state roads, which connect Ulaanbaatar with the other two major cities and with the 18 Aimak centers;
- (d) Local roads, connecting the centers of Aimaks with the centers of Somons; and
- (e) "Internal" roads, which connect centers of Somons with state farms and agricultural and industrial enterprises.

38. The *paved road* system is in relatively good condition. In spite of consistent shortcomings in routine maintenance its survival has been helped by the fact that many sections were built on relatively high embankments thus ensuring that the base pavement remains relatively dry. Nevertheless, there are mounting routine maintenance needs such as large potholes in weak sections and a number of bridges that would require rehabilitation.

Table 9: MONGOLIA: ROAD CLASSIFICATION AND SURFACE CONDITIONS
(In kms)

| | Length | Paved | Gravel | Natural |
|-------------|---------|-------|--------|---------|
| State Roads | 11,248 | 1,191 | 1,547 | 8,510 |
| Local Roads | 38,042 | 112 | 1,529 | 36,401 |
| Other Roads | 150,000 | | | 150,000 |

Source: ADB, Road Master Plan, 1994.

39. The *graveled roads network* appears to have emerged out of strategic needs or local initiatives at different points of time (going back to the 1940s) and do not appear to have received the regular maintenance regime needed to preserve their serviceability to a designated minimum standard. These roads vary in texture and state of preservation, from boulder-strewn through graveling, to having a selected earth surface.

40. As much as 75 percent of the State Road network and 95 percent of local roads are earth roads, or *natural roads*. These roads are mostly shifting tracks in a general direction across the gently undulating, open steppe terrain or along flat hill slopes. Even in the

relatively mountainous parts of the country, the route corridors have traditionally developed utilizing available gaps between mountainous features, which are crossed along passes at critical points. Internal roads might be viewed as cart tracks (or their direction), though some of these might be used occasionally by vehicles transporting inputs and produce for the farmers and herdsmen, essential consumer goods and construction materials.

41. A recent countrywide spot traffic count shows that significant traffic occurs mainly in the vicinity of Ulaanbaatar, west and northwards, with the only other significant level near Hovd in the far West. Anecdotal evidence shows that the road and bridge infrastructure is deteriorating. However the true implications will not be adequately ascertained until annual surveys of roads and bridges are carried out.

42. **Road Maintenance Capacity.** The Road Department in the Ministry of Infrastructure Development (MID) is charged with policy formulation, programming and budgeting road activities (construction, maintenance), managing the road fund, research, bridge engineering and maintenance operations. Construction works are not carried out through competition and bidding. Instead, the nominally privatized road and bridge construction companies are assigned work. For state roads, MID awards contracts and supervises the works; for local roads, MID awards the contracts, aimaks execute the work and MID supervises; for natural roads, the work is done by force account. Maintenance is carried out almost exclusively by MID units.⁴ The inventory of maintenance equipment is ample, given the relatively modest size of the network. However, shortages of foreign exchange and the resultant lack of spares have resulted in the deferral of equipment maintenance and the resultant immobilization of equipment.

43. New construction and maintenance is limited. For instance, in 1992, new construction totalled three bridges and at most 25 km of new roads (a few kilometers of gravel but mostly earth) and there was no paving work because of shortages of bitumen. In 1993, maintenance work appears to have increased somewhat, as a result of the improvement of funding and the greater availability of foreign exchange, including the purchase of bitumen using funds from an IDA project.

Road Funding and Expenditures

44. Up to 1990, road infrastructure funding originated from a variety of sources (Government budget, domestic and foreign loans, maintenance fees imposed on vehicles). Since 1991, the newly established road fund, replenished by a 13 percent tax on motor fuels, constitutes the only source of funds for road construction and maintenance. In 1991 and

⁴ A move towards maintenance by contract has been initiated. A private contractor has a contract for routine maintenance covering half a dozen activities including snow removal of about 10 km of paved roads south of Ulaanbataar.

1992, tax collection for the Road Fund remained relatively low due to the recession and, possibly, to difficulties associated with the collection of a new tax. In 1993, these problems appear to have been overcome and Road Fund resources increased substantially over the inflation rate. In 1994, the yield of the fuel tax is expected to increase to Tug 3.8 billion, but the Government will only allocate Tug 2.8 billion to the Road Fund, because of severe pressures on the budget. Recently, the road fund tax was increased to 20 percent of fuel prices. It was stated that the additional seven percent will be transferred to the aimaks in support of regional and local road maintenance programs.

45. Real expenditures in road maintenance and investment rose steadily from 1986 to 1990. However, they fell since 1990 until 1992. The level of real expenditures in 1992 represented less than a third of that of 1990. In 1993, expenditures recovered to the level achieved in 1990. Most of the inputs in road maintenance and construction need to be imported (equipment, fuel, bitumen, cement, steel). Despite the devaluation of the Tugrik in 1993 (from Tug 40 to Tug 400) the road fund increased from \$5.8 million in 1992 to \$10.2 million in 1993.⁵

46. Mongolia allocates most of the road fund to road and bridge construction. Maintenance, including rehabilitation, as a share of total road expenditures declined, from 33 percent in 1986 to 21 percent in 1993. Routine maintenance accounted for around 2.3 percent of the total expenditures on road investment and maintenance in 1993, somewhat less than in 1992 (3.5 percent). The World Bank estimates that deferred routine maintenance on the paved network alone amounts to about \$800,000 (or about 3 times the resources allocated to routine maintenance in 1993).

47. A new Road Fund Law is being prepared and will be discussed in the Great Khural before end 1994. The new law will ensure that the management of the road fund follows the rules of accountability embodied in the budget law. In addition to the fuel tax, other road user taxes and charges would be allocated to the Road Fund.⁶ As a result of all the proposed—or likely to be proposed—measures, the road fund is expected to increase by 50 percent the resources available for road construction and maintenance from domestic revenue sources. This estimate is reflected in the 1994-97 PSIP.

⁵ Since the foreign exchange was rationed, any comparison with the past is very questionable.

⁶ Including taxes on new vehicles, axle weight tax, breakable goods tax, and tolls on small sections of roads and large bridges.

Table 10: ROAD INVESTMENT AND MAINTENANCE, 1988-93
(Millions of Tugriks)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Sources of Funds | | | | | | |
| Government budget | 80.7 | 86.5 | 95.7 | | | |
| Road fund | | | | 165.6 | 233.0 | 3,069.7 |
| Domestic loans | 32.3 | 39.7 | 35.9 | 8.1 | 3.0 | 20.0 |
| Foreign loans | 5.3 | 6.4 | 8.0 | | | |
| Maintenance fees | 48.4 | 60.5 | 52.7 | 52.1 | 37.1 | |
| Total | 166.7 | 193.1 | 192.3 | 225.8 | 273.1 | 3,089.7 |
| Expenditures | | | | | | |
| Construction | 92.7 | 109.3 | 107.7 | 105.1 | 153.8 | 2,688.9 |
| Periodic maintenance | 36.5 | 39.3 | 43.2 | 45.6 | 62.6 | 649.5 |
| Routine maintenance | 3.2 | 3.3 | 3.4 | 4.1 | 9.6 | 80.0 |
| Emergency programs | 2.0 | 1.5 | 2.1 | 2.4 | 1.4 | 7.2 |
| Equipment purchases | 32.3 | 39.7 | 35.9 | 8.1 | 45.1 | 90.0 |
| Total | 166.7 | 193.1 | 192.3 | 165.3 | 272.5 | 3,515.6 |
| Memo Items: | | | | | | |
| Real expenditures in Tug | 164.2 | 196.0 | 196.2 | 84.0 | 56.2 | 194.1 |
| Expenditures in (\$ million) | 56.5 | 64.6 | 41.2 | 6.6 | 6.8 | 11.8 |
| Maintenance/Tot. exp (%) | 23.8% | 22.1% | 24.2% | 30.1% | 26.5% | 20.8% |
| Routine maint./Tot exp. (%) | 1.9% | 1.7% | 1.8% | 2.5% | 3.5% | 2.3% |

Source: ADB, Road Master Plan, 1994.

Road Sector Development

48. The Government's 10-year road construction plan calls for the development of the road sections listed in Table 5.13. Estimates of benefit-cost ratios from the Road Sector Master Plan study are also included.⁷

Table 11: MONGOLIA: GOVERNMENT ROAD CONSTRUCTION PRIORITIES

| Road Link | Length | Benefit/Cost Ratio |
|------------------------|--------|--------------------|
| Nalaih-Zameen-uud | | |
| Nalaih-Bayan | 73 | 1.83 |
| Bayan-Choir | 142 | 1.48 |
| Choir-Saynshand | 225 | 1.81 |
| Saynshand-Zameen-uud | 218 | 1.62 |
| Darkhan-Erdenet | 180 | 1.86 |
| Nalaih-Baga Nuur | 100 | 1.24 |
| Harhorin-Tsetserleg | 124 | 1.03 |
| Arbaykheer-Zayanhongor | 200 | 0.84 |
| Khovd-Ulaangom-Borshoo | 238 | 0.93 |
| Total | 1,500 | |

Source: ADB, Road Master Plan, 1994.

49. With the exception of the Elsen Tasarhai-Harhorin road, which is being systematically upgraded to paved standards, the strategy for road improvement is the construction or graveling of short stretches of roads in a variety of locations. For instance, in 1993, there were 15 small stretches of state roads totalling 315 km which were graveled or paved to standard levels. In some cases, the coverage is nominal, e.g., 39 km proposed to be

⁷ It should be noted that benefit-cost ratio estimates, as developed by the Road Sector Master Plan, are based on a one-day spot survey of traffic in selected localities. While these results may be sufficient to allow for a rough ranking of road sections, they are insufficient to justify major road construction projects.

developed on the Harhorin-Tsetserleg road, which has a total length of 383 km. The ambitious 10-year program has been compromised by the limited amount of resources. Available resources will be insufficient to complete all these projects within a reasonable period of time.

50. Aside from the choices of roads to be improved, the major issues which would need to be examined within the Road Sector Master Plan are:

- (a) **Dispersion of road construction.** Because of the road dispersion, efforts to pave short lengths of roads throughout the country will not be effective in alleviating road transport constraints. Rather, the Government should concentrate its limited resources on maintaining the existing paved network while encouraging donors to support the progressive upgrading of that part of the road network which provides the greatest economic benefits for the costs incurred. From the limited analysis that was carried out in the course of appraising the World Bank's Transport Sector project, the benefit-cost ratio of routine road maintenance on the paved network is 15:1 versus a maximum 1.8:1 for new road construction;
- (b) **Road construction priorities.** At this stage, economic priorities are not obvious. The information recently collected on traffic counts is limited and would need to be completed by additional surveys. From the information that is available, it would appear that the highest densities of traffic are located near the capital and in the Western provinces, near Hovd. Also, the proposed construction of a major road section from Ulaanbaatar to Zameen-Uud, which is part of the Asian Road network, would need to be reviewed in light of the road-rail competition for traffic. The ongoing road sector master plan study should ensure that this issue is adequately addressed;
- (c) **Quality standards of new paved roads.** With only 1,300 km of paved roads (including 300 km in the capital city), Mongolia is only now starting a process of upgrading the road network. The roads which have been built are heavily engineered and have provided relatively trouble-free use since their construction. Given the country's low population relative to land area and the low tax base from which resources may be mobilized to maintain the network, donors would need to assume that funds for maintenance will be minimal for a long time to come. These constraints should guide the Government and the donors on the choice of road standards to be adopted for the future. It may be more economical to choose more robust standards at the outset to provide for relatively maintenance-free use over the lifetime of the road that are paved. The implications of such a policy are that, with higher technical standards, the number of roads which would be upgraded would be reduced.

Road Investments

51. At present, in the absence of a comprehensive plan, the road sector PSIP is not well developed. A short to medium-term program to strengthen road maintenance is being supported by the World Bank (Transport Rehabilitation Project).⁸ The projects provide essential inputs (bitumen, spares), new equipment and technical assistance for about \$4.0 million. The program will help the Government "catch up" on deferred routine maintenance on the paved network while developing its capacity to design and implement a preventative road maintenance strategy.

52. The new road sector master prepared with ADB assistance reviews the strategies and the investment choices over the medium term. A long term program of road improvements, totalling 5,362 km for a cost of \$427 million (1993 prices) has been identified. The strategy takes into account probable developments in road traffic over a long period of time as well as Mongolia's participation in regional transport programs such as the Asia Highway system.

53. On the basis of the preliminary results, the ADB is now undertaking the appraisal of a road improvement program aimed at upgrading 200 km of roads. Studies are being undertaken to assess the economic feasibility of five road sections.⁹ If a road construction program were initiated in 1996 and that unit costs remain within the limits identified by the Master plan for two-lane highways (\$125,000 per km) the ADB program would cost about \$30 million. Other road construction programs may materialize during the 1994-97 but are not taken into account in the PSIP. The total road sector expenditures in the PSIP, including routine maintenance and upgrading would amount to about \$56 million during 1994-97.

Air Transport

54. Air transport plays an important role, both in linking Mongolia with other countries and in linking remote parts of the country to Ulaanbaatar and other major centers. During the 1980s air transport was the most rapidly growing passenger transport mode, from 448,000 passengers in 1980 to 823,000 in 1990.

55. The airport infrastructure in Mongolia includes 20 airports. The largest airport is located in Ulaanbaatar and is the only one capable of accommodating international aircraft. Most of the aimak centers have rudimentary airports. The national airline is a state-owned company. However, there are now private companies in formation.

⁸ The World Bank Economic Rehabilitation Credit, now completed, also financed some bitumen.

⁹ The proposed sections are: Darkhan-Erdenet (180 kms), Nalaih-Baga Nuur (100 kms), Nalaih-Bayan (73 km), Bayan-Choir (142 km), and Choir-Saynshand (225 km).

56. **Sector Organization and Finances.** The Civil Aviation Authority (CAA) is responsible for operating Mongolian Airways(MIAT), airports and air traffic control facilities. As of 1990, CAA staff numbered 1,542: 300 staff involved in flight operations; 873 technical staff; and 361 administrative staff. Recent CAA's financial statements show some profits although the accounting system did not follow western practices and expenditures excluded debt service and financial charges.

57. Medium-term development objectives focus on upgrading the international airport and navigational aids as well as institutional reforms. Over the longer term, the objectives are to replace the aging fleet of aircraft, improve aircraft maintenance, upgrade the domestic airport infrastructure and nav aids and improve the passenger reservation system.

58. The PSIP for 1994-97 partially reflects these priorities. It comprises a project, supported by the ADB, to strengthen the infrastructure at the Ulaanbaatar international airport and upgrade nav aids. The project includes (a) strengthening the existing runway, without extending it; (b) improving the passenger terminal and baggage handling facilities; (c) building a freight handling facility; (d) installing modern nav aids that meet international standards; (e) reforming the institutional setup, including the separation of the airport authority from the airline. The project will be financed by a \$39 million credit, onlent by Mongol Bank to the CAA at quasi-commercial terms, including the assumption by CAA of the foreign exchange risks. CAA expects to be able to meet these liabilities since a substantial share of its revenues are derived from overflight and international landing fees (which are competitive with those in neighboring countries). With an increasing number of airlines applying for overflight rights and using Mongolia as a technical stopover on long flights to Europe, the CAA should be able to support the debt burden and maintain the new assets.

Telecommunications

59. The development of the telecommunications system has reflected the spatial distribution of the population of Mongolia. In Mongolia, 57 percent of the population is classified as urban of whom about half live in Ulaanbaatar. The rural population is widely dispersed. Between 1980 and 1991, the exchange capacity increased from 42,600 lines to 76,6000. Ulaanbaatar had 33,500 lines. The two largest exchanges outside of the capital city were located in Erdenet and Darkhan, and exchanges with capacities of between 300 and 2,000 were located in aimak centers and some somons.

60. Until the recent introduction of digital technology in Ulaanbaatar, all exchanges operated used obsolete analog technology. In 1990, there was an estimated unmet demand for telephone lines throughout the country accounting for 53,000 lines with 80 percent in Ulaanbaatar. Since then, a project with Alcatel has added 20,000 new lines, using digital technology. Telephone exchanges are fully used with high occupancies. Local calls are not metered.

61. The Mongolia Telecommunications Company (MTC) is responsible for telecommunications and postal services. However, only Ulaanbaatar exchanges and the domestic trunk network are controlled directly by MTC. Operational authority at the local exchange level rest with the aimak authorities. This fragmented organization will create difficulties for the development of an integrated, efficient and cost effective system.

62. The Government's medium-term objectives for the development of the sector are: (a) to develop an effective and efficient sector to support economic development; (b) to rehabilitate and automate the basic telecommunications network; (c) to improve the density and quality of telecommunications services; (d) to extend the coverage of basic telephone services in urban and rural areas; and (e) to establish self-financing for sectoral investments. The Government plans to increase telephone density which is about four exchange lines per 100 persons. The emphasis, however, will be on upgrading the existing network rather than on expansion.

63. To achieve these objectives, the Government is proposing major sectoral reforms, including (a) the adoption of a telecommunications law; (b) separating postal and broadcasting functions from MTC; (c) establishing a sector regulatory authority; (d) restructuring and commercializing MTC, including the creation of a separate postal authority; (d) privatizing MTC and establishing a partnership between MTC and a foreign company; (f) attracting greater private-sector participation to mobilize additional financial, technical and human resources for sector development; and (g) introducing competition in basic and value-added services in the longer term.

64. Telecommunications investments for 1994-97 consist of a major project, supported by ADB, a group of Nordic donors, KfW and MTC totalling \$49 million. A parallel project to strengthen international communications and broaden the telephone network in Ulaanbaatar is being supported with Japanese assistance.

**Table 12: MONGOLIA: INVESTMENTS IN TRANSPORT AND
TELECOMMUNICATIONS, 1994-97**
(\$ million)

| Project | Annual Investments | | | |
|------------------------------------|--------------------|-------|-------|-------|
| | 1994 | 1995 | 1996 | 1997 |
| Rail Transport | 27.4 | 31.7 | 24.5 | 22.9 |
| Border transit facility | 10.4 | 0.0 | 0.0 | 0.0 |
| Equipment purchases | 10.5 | 23.0 | 20.0 | 18.0 |
| Rehabilitation | 6.5 | 4.9 | 4.5 | 4.9 |
| Ties plant | 0.0 | 3.8 | 0.0 | 0.0 |
| Urban Passenger Transport | 1.8 | 3.7 | 6.2 | 7.9 |
| Airport Infrastructure | 5.0 | 19.0 | 15.0 | 6.5 |
| Roads | 7.0 | 10.7 | 16.4 | 22.1 |
| Maintenance | 2.0 | 5.2 | 5.4 | 5.6 |
| New Construction | 5.0 | 5.5 | 11.0 | 16.5 |
| Other Transport | 0.3 | 0.9 | 0.7 | 0.2 |
| Sub-total transport | 41.5 | 65.9 | 62.8 | 59.5 |
| of which: unfunded | 0.0 | 13.5 | 15.4 | 21.1 |
| Telecommunications | 0.0 | 16.4 | 29.2 | 22.6 |
| of which: unfunded | 0.0 | 0.0 | 0.0 | 0.0 |
| Total transport/telecommunications | 41.5 | 82.3 | 92.0 | 82.1 |
| of which: unfunded (percent)* | 0.0% | 16.4% | 16.7% | 25.7% |

* Everything but *formally* committed resources.

Sources: Government of Mongolia and Mission Estimates.

Directly Productive Sectors

65. In agriculture and livestock, Government and donors are reviewing sector strategies. There are no large projects being planned for 1994/95. In the latter part of the 1994-97 period, programs in livestock, agriculture, irrigation rehabilitation, and the processing of agricultural and livestock products are being planned by some donors.

66. In industry, most donors have refrained from supporting new public ventures. New industrial projects under preparation (e.g., such as the disposable syringe factory and a paper mill using grass as raw material) are being reconsidered. Small and medium-scale enterprise programs supported by the donors consist of moderate employment creation projects (Germany, ADB, USAID). These projects are managed directly by the embassies or by MTI because of weaknesses in commercial banks which inhibits using them to intermediate medium and long-term lending to new private businesses. However, at least one donor (ADB) has initiated an industrial development program which would channel resources to enterprises through the banking sector.

67. In the mining sector (except coal, which is covered in the energy sector), PSIP investments are minimal. There are two small public sector projects in this sector: (a) a small credit by IDA to the Erdenet Copper Mine (which is part of the METS project). The project consists mainly of spare parts and technical assistance for a total \$5.0 million and should be disbursed in 1994; and (b) direct budgetary resources of about 1.2 billion Tugs (20 percent of 1994 budgetary investments) intended to be onlent to national gold mining ventures. The Government is extending some support to the gold mining sector of strategic importance since the production of gold directly contributes to increase the country's foreign exchange reserves. The development of the gold mining sector with the assistance of foreign partners is discouraged since they cannot legally be majority owners of the mines. Moreover, gold production must be sold to the Bank of Mongolia which therefore enjoys a monopsonistic position. The use of public resources in gold mining should be given low priority. Instead, private resources can be mobilized if proper regulations are in place.

STATISTICAL APPENDIX

STATISTICAL APPENDIX

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1.1: Geography

| | LATITUDE | LONGITUDE | DISTANCE |
|--|----------|-----------|----------|
| Co-ordinates of the extreme state boundary points: | | | |
| Northern point - | | | |
| Mongol Sharyn davaa | 52 09' | 98 57' | |
| Southern point | | | |
| Orvog gashuny Bor tolgoi | 41 35' | 105 00' | |
| Western point | | | |
| Mant uul | 48 53' | 87 44' | |
| Eastern point | | | |
| Modtoi hamar | 46 43' | 119 56' | |
| Territory length (km): | | | |
| From the North to the South | | | 1259 |
| From the East to the West | | | 2392 |
| Territory, thousand sq km | | | |
| | 1566.5 | | |
| Total length of boundary line, km | | | |
| | 8161.8 | | |
| Of which: | | | |
| bordering with Commonwealth of Independent States km | 3485 | | |
| bordering with China, km | 4676.5 | | |

Source: State Statistical Office

1.2: Population

| | 1918 | 1925 | 1940 | 1950 | 1960 | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Population at the end of the year (,000) | 648 | 684 | 744 | 772 | 968 | 1265 | 1682 | 1901 | 1950 | 1997 | 2044 | 2096 | 2149 | 2187 | 2215 | 2250 |
| Population Growth Rate (%) | | | | | | | | | 2.6% | 2.4% | 2.4% | 2.5% | 2.6% | 1.8% | 1.3% | 1.6% |
| Average Annual Population (,000) | 648 | 668 | 741 | 766 | 953 | 1248 | 1661 | 1878 | 1925 | 1973 | 2021 | 2070 | 2123 | 2168 | 2201 | 2233 |
| Inhabitants per 1 sq km | 0.41 | 0.44 | 0.47 | 0.49 | 0.62 | 0.81 | 1.07 | 1.21 | 1.24 | 1.27 | 1.30 | 1.34 | 1.37 | 1.40 | 1.41 | 1.44 |
| Number of Households (,000) | | | | | | | 357 | 373 | 387 | 411 | 424 | 449 | 492 | 516 | 512 | |
| Number of persons per Household | | | | | | | 5.2 | 5.1 | 5.0 | 4.9 | 4.8 | 4.7 | 4.4 | 4.3 | 4.4 | |
| Population by Sex (,000) | | | | | | | | | | | | | | | | |
| Male | | | | | | | 952 | 977 | 1000 | 1021 | 1046 | 1072 | 1091 | 1105 | 1123 | |
| Female | | | | | | | 948 | 973 | 998 | 1023 | 1050 | 1077 | 1096 | 1110 | 1127 | |
| Total Permanent Resident Population(000) (for percapita calculations) | | | | | | | 1823 | 1872 | 1920 | 1967 | 2019 | 2076 | 2129 | 2177 | 2211 | |

Source: State Statistical Office

2.1: Employment by Sector a/
(End of the year, thousand)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Total Employment | 561.6 | 643.1 | 665.4 | 743.3 | 764.1 | 783.6 | 795.7 | 806.0 | 772.8 |
| Material production sphere | 413.2 | 482.5 | 495.9 | 540.9 | 549.1 | 571.1 | 582.0 | 599.8 | 578.9 |
| Industry | 104.6 | 102.7 | 108.1 | 118.0 | 123.1 | 131.6 | 132.2 | 133.9 | 124.1 |
| Agriculture | 187.0 | 235.2 | 236.6 | 248.8 | 244.3 | 256.1 | 270.9 | 290.7 | 302.2 |
| Construction | 33.9 | 44.9 | 46.4 | 63.1 | 65.2 | 66.0 | 49.4 | 41.4 | 33.0 |
| Transport | 38.7 | 43.4 | 44.3 | 48.2 | 50.1 | 47.9 | 42.2 | 40.5 | 37.5 |
| Communication | 5.5 | 7.4 | 7.3 | 8.4 | 8.3 | 9.8 | 10.0 | 9.7 | 8.5 |
| Trade, procurement, material etc. | 41.7 | 44.7 | 45.4 | 50.3 | 53.8 | 54.6 | 51.9 | 53.8 | 50.5 |
| Forestry | 1.2 | 2.2 | 2.5 | 2.5 | 2.8 | 2.7 | 4.0 | 3.5 | .. |
| Other | 0.6 | 2.0 | 5.3 | 1.6 | 1.5 | 2.4 | 21.4 | 26.3 | 23.1 b/ |

Note: a/ Includes Private sector

b/ Includes forestry

Source: State Statistical Office

2.2: Employment by Branch of Agriculture a/
(Thousand)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Total | 181.5 | 180.1 | 178.5 | 180.6 | 175.9 | 177.1 | 180.0 | 185.0 | .. |
| Livestock | 151.2 | 149.0 | 147.7 | 149.6 | 146.5 | 149.9 | 160.1 | 165.0 | .. |
| Crops | 30.3 | 31.1 | 30.8 | 31.0 | 29.4 | 27.2 | 19.9 | 20.0 | .. |
| BY OWNERSHIP: | | | | | | | | | |
| State farms | 30.6 | 31.4 | 29.9 | 30.8 | 35.5 | 35.2 | 30.3 | .. | .. |
| Fodder supply farms | 5.7 | 6.0 | 6.1 | 6.2 | .. | .. | .. | .. | .. |
| Agricultural cooperatives | 142.1 | 139.7 | 138.3 | 138.7 | 137.5 | 139.4 | 147.7 | .. | .. |
| Inter-farm enterprises serving Ag. Coops | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.7 | .. | .. |
| Inter-agricultural cooperative Org. | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.1 | 0.7 | .. | .. |

Note: a/ does not include Private Sector

Source: State Statistical Office

2.3: Employment by Branch of Industry a/
(Thousand)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------|------|------|-------|-------|-------|-------|-------|-------|------|
| Total industry | 91.0 | 95.5 | 100.7 | 107.3 | 107.3 | 105.9 | 104.2 | 103.6 | .. |
| Electricity | 7.0 | 7.6 | 8.2 | 9.8 | 8.4 | 15.6 | 20.8 | 20.6 | .. |
| Fuel industry | 3.9 | 3.7 | 4.1 | 4.3 | 4.1 | 4.3 | 4.5 | 4.4 | .. |
| Engineering and metal-working | 5.8 | 6.3 | 6.8 | 6.4 | 6.6 | 3.8 | 2.8 | 2.8 | .. |
| Non-ferrous metals | 4.6 | 4.6 | 5.0 | 4.7 | 4.9 | 4.8 | 4.8 | 4.8 | .. |
| Building materials | 9.0 | 10.9 | 11.8 | 12.2 | 12.2 | 9.2 | 8.3 | 8.2 | .. |
| Wood processing industry | 10.4 | 10.2 | 11.1 | 10.2 | 10.1 | 17.4 | 11.6 | 11.4 | .. |
| Textiles | 7.7 | 7.6 | 8.2 | 8.0 | 8.3 | 9.0 | 8.2 | 8.2 | .. |
| Clothing | 11.6 | 12.0 | 13.0 | 12.6 | 10.1 | 12.6 | 13.7 | 13.5 | .. |
| Leather, fur and shoe | 8.3 | 8.4 | 9.2 | 9.7 | 9.3 | 7.2 | 8.6 | 8.5 | .. |
| Printing | 1.9 | 1.9 | 1.9 | 2.0 | 1.3 | 1.7 | 1.3 | 1.4 | .. |
| Glass | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.6 | 0.5 | .. |
| Food | 15.7 | 16.2 | 17.6 | 14.0 | 14.2 | 14.4 | 14.1 | 13.9 | .. |

Note: a/ does not include Private Sector

Source: State Statistical Office

3.1: National Accounts in Current Prices
(Million Tugrik)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| GDP at market prices | 7425 | 8205 | 8762 | 8995 | 9372 | 9216 | 9709 | 10301 | 10731 | 10465 | 18910 | 43100 | 183280 |
| GDP at factor cost | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Agriculture | 1062 | 1274 | 1377 | 1335 | 1338 | 1544 | 1541 | 1655 | 1798 | 1778 | 3293 | 13735 | 51284 |
| Industry | 2109 | 2441 | 2697 | 2787 | 2931 | 2971 | 3095 | 3258 | 3423 | 3461 | 5146 | 15084 | 64315 |
| Mining and quarrying | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manufacturing | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Services, etc. | 4254 | 4489 | 4688 | 4873 | 5102 | 4701 | 5074 | 5387 | 5509 | 5226 | 10472 | 14281 | 67680 |
| Imports of GNFS | 4059 | 4516 | 4642 | 4781 | 5219 | 5990 | 5459 | 5461 | 6028 | 5140 | 13203 | 17336 | 118879 |
| Exports of GNFS | 1520 | 1840 | 2023 | 2300 | 2369 | 2624 | 2623 | 2685 | 2488 | 2301 | 9253 | 15632 | 113865 |
| Resource balance | -2540 | -2676 | -2619 | -2481 | -2850 | -3367 | -2836 | -2776 | -3539 | -2838 | -3950 | -1704 | -5014 |
| Total Expenditures | 9965 | 10881 | 11381 | 11477 | 12222 | 12583 | 12545 | 13077 | 14270 | 13303 | 22860 | 44804 | 188294 |
| Total consumption, etc | 5359 | 5688 | 6883 | 6914 | 6748 | 6399 | 8108 | 8742 | 9328 | 8876 | 17395 | 39804 | 153839 |
| General government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private, etc | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Statistical discrepancy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gross domestic investment | 4606 | 5193 | 4499 | 4562 | 5474 | 6184 | 4437 | 4335 | 4941 | 4427 | 5465 | 5000 | 34455 |
| GDPf | 4289 | 4646 | 3924 | 4282 | 4629 | 4760 | 4538 | 4530 | 4800 | 3381 | 4027 | 7326 | .. |
| Nonfinancial Pub. Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| General Government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Central Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| State and Local Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nonfinancial Pub. Enterp. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Changes in Stocks | 317 | 547 | 574 | 281 | 845 | 1424 | -100 | -195 | 142 | 1046 | 1438 | -2326 | .. |
| Gross domestic saving | 2066 | 2517 | 1879 | 2081 | 2623 | 2817 | 1601 | 1559 | 1402 | 1589 | 1515 | 3296 | 29441 |
| Net factor income | -1074 | -1099 | -1132 | -1168 | -1217 | -1258 | -1359 | -1288 | -1186 | -204 | -63 | -1080 | -6217 |
| Net current transfers | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | -116 | .. |
| Gross national saving | 992 | 1418 | 747 | 912 | 1406 | 1559 | 242 | 270 | 216 | 1385 | 1452 | 2100 | 23224 |
| Net Indirect Taxes | 2277 | 2465 | 2633 | 2700 | 2736 | 1780 | 479 | 535 | 475 | 929 | 4116 | 4200 | .. |
| Indirect Taxes | 2277 | 2465 | 2633 | 2700 | 2736 | 2281 | 2281 | 2218 | 2406 | 2406 | 5492 | 5800 | .. |
| Subsidies | .. | .. | .. | .. | .. | 516 | 1802 | 1683 | 1932 | 1477 | 1376 | 1600 | .. |
| Gross national product | 6352 | 7106 | 7631 | 7827 | 8155 | 7958 | 8350 | 9013 | 9545 | 10261 | 18847 | 42020 | 177063 |
| IFS conversion factor | 3.19 | 3.24 | 3.30 | 3.54 | 3.71 | 3.18 | 2.89 | 2.95 | 2.99 | 4.67 | 25.00 | 40.00 | 295.00 |
| IEC conversion factor | 3.19 | 3.24 | 3.30 | 3.54 | 3.71 | 3.18 | 2.89 | 2.95 | 2.99 | 4.67 | 25.00 | 40.00 | 295.00 |
| GDP at mp (curr. mill. US\$) | 2328 | 2532 | 2655 | 2541 | 2526 | 2898 | 3360 | 3492 | 3589 | 2241 | 756 | 1078 | 621 |

Source: IMF and World Bank Mission estimates

3.2: National Accounts in Constant 1986 Prices
(Million Tugrik)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| GDP at market prices | 6628 | 7182 | 7595 | 8052 | 8512 | 9216 | 9632 | 10124 | 10981 | 10761 | 9692 | 8957 | 8839 |
| Net indirect taxes | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| GDP at factor cost | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Agriculture | 1203 | 1373 | 1386 | 1333 | 1459 | 1544 | 1445 | 1479 | 1684 | 1722 | 1628 | 1532 | 1494 |
| Industry | 2085 | 2308 | 2537 | 2758 | 2907 | 2971 | 3055 | 3168 | 3530 | 3616 | 3160 | 2687 | 2563 |
| Mining and quarrying | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manufacturing | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Services, etc. | 3340 | 3500 | 3672 | 3960 | 4146 | 4701 | 5132 | 5477 | 5767 | 5424 | 4904 | 4738 | 4782 |
| Imports of GNFS | 3624 | 3953 | 4023 | 4279 | 4741 | 5991 | 5416 | 5367 | 6168 | 3603 | 1848 | 1529 | 1439 |
| Exports of GNFS | 1357 | 1611 | 1753 | 2059 | 2152 | 2624 | 2602 | 2639 | 2546 | 1559 | 1356 | 1505 | 1622 |
| Resource balance | -2267 | -2342 | -2270 | -2321 | -2589 | -3367 | -2813 | -2728 | -3622 | -2044 | -492 | -24 | 183 |
| Total Expenditures | 8895 | 9524 | 9865 | 10272 | 11101 | 12583 | 12445 | 12852 | 14602 | 12805 | 10184 | 8981 | 8656 |
| Total consumption, etc | 4784 | 4978 | 5966 | 6189 | 6129 | 6399 | 8043 | 8592 | 9546 | 8253 | 7383 | 7942 | 6994 |
| General government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private, etc | .. | .. | .. | 6189 | 6129 | 4126 | 5678 | 6160 | 6996 | 5384 | 5122 | 6196 | 5091 |
| Statistical discrepancy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gross domestic investment | 4111 | 4545 | 3899 | 4084 | 4972 | 6184 | 4402 | 4260 | 5056 | 4552 | 2801 | 1039 | 1662 |
| GDFI | 3829 | 4067 | 3401 | 3833 | 4205 | 4760 | 4501 | 4452 | 4912 | 3476 | 2064 | 1522 | .. |
| Nonfinancial Pub. Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| General Government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Central Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| State and Local Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nonfinancial Pub. Enterp. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Changes in Stocks | 283 | 479 | 498 | 251 | 767 | 1424 | -99 | -192 | 145 | 1076 | 737 | -483 | .. |
| Net factor income | -1074 | -1099 | -1132 | -1168 | -1217 | -1258 | -1359 | -1288 | -1186 | -167 | -19 | -279 | -105 |
| Net current transfers | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | -24 | 0 |
| Gross national product | 5555 | 6083 | 6463 | 6883 | 7296 | 7958 | 8273 | 8836 | 9795 | 10594 | 9673 | 8678 | 8734 |
| Gross domestic product | 1844 | 2203 | 1629 | 1863 | 2383 | 2817 | 1589 | 1532 | 1435 | 2563 | 2248 | 889 | 1601 |
| Gross national saving | 770 | 1104 | 497 | 694 | 1166 | 1559 | 229 | 243 | 249 | 2396 | 2229 | 586 | 1496 |
| Capacity to import | 1357 | 1611 | 1753 | 2059 | 2152 | 2624 | 2602 | 2639 | 2546 | 1613 | 1295 | 1379 | 1378 |
| Terms of trade adjustment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 | -61 | -126 | -244 |
| Gross domestic income | 6628 | 7182 | 7595 | 8052 | 8512 | 9216 | 9632 | 10124 | 10981 | 10815 | 9631 | 8831 | 8595 |
| Gross national income | 5555 | 6083 | 6463 | 6883 | 7296 | 7958 | 8273 | 8836 | 9795 | 10648 | 9612 | 8552 | 8490 |

Source: IMF and World Bank Mission estimates

3.3: National Accounts in Current Prices
(Percentage Shares to GDP)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| GDP at market prices | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| GDP at factor cost | 14.3 | 15.5 | 15.7 | 14.8 | 14.3 | 16.7 | 15.9 | 16.1 | 16.8 | 17.0 | 17.4 | 31.9 | 28.0 |
| Agriculture | 28.4 | 29.8 | 30.8 | 31.0 | 31.3 | 32.2 | 31.9 | 31.6 | 31.9 | 33.1 | 27.2 | 35.0 | 35.1 |
| Industry | 57.3 | 54.7 | 53.5 | 54.2 | 54.4 | 51.0 | 52.3 | 52.3 | 51.3 | 49.9 | 55.4 | 33.1 | 36.9 |
| Mining and quarrying | 54.7 | 55.0 | 53.0 | 53.2 | 55.7 | 65.0 | 56.2 | 53.0 | 56.2 | 49.1 | 69.8 | 40.2 | 64.9 |
| Manufacturing | 20.5 | 22.4 | 23.1 | 25.6 | 25.3 | 28.5 | 27.0 | 26.1 | 23.2 | 22.0 | 48.9 | 36.3 | 62.1 |
| Services, etc. | -34.2 | -32.6 | -29.9 | -27.6 | -30.4 | -36.5 | -29.2 | -26.9 | -33.0 | -27.1 | -20.9 | -4.0 | -2.7 |
| Imports of GNFS | 134.2 | 132.6 | 129.9 | 127.6 | 130.4 | 136.5 | 129.2 | 126.9 | 133.0 | 127.1 | 120.9 | 104.0 | 102.7 |
| Exports of GNFS | 72.2 | 69.3 | 78.6 | 76.9 | 72.0 | 69.4 | 83.5 | 84.9 | 86.9 | 84.8 | 92.0 | 92.4 | 83.9 |
| Resource balance | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Total Expenditures | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Total consumption, etc | 62.0 | 63.3 | 51.3 | 50.7 | 58.4 | 67.1 | 45.7 | 42.1 | 46.0 | 42.3 | 28.9 | 11.6 | 18.8 |
| General government | 57.8 | 56.6 | 44.8 | 47.6 | 49.4 | 51.6 | 46.7 | 44.0 | 44.7 | 32.3 | 21.3 | 17.0 | .. |
| Private, etc | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Statistical discrepancy | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Gross domestic investment | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| GDFI | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nonfinancial Pub. Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| General Government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Central Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| State and Local Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nonfinancial Pub. Enterp. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Changes in Stocks | 4.3 | 6.7 | 6.6 | 3.1 | 9.0 | 15.5 | -1.0 | -1.9 | 1.3 | 10.0 | 7.6 | -5.4 | .. |
| Gross domestic saving | 27.8 | 30.7 | 21.4 | 23.1 | 28.0 | 30.6 | 16.5 | 15.1 | 13.1 | 15.2 | 8.0 | 7.6 | 16.1 |
| Net factor income | -14.5 | -13.4 | -12.9 | -13.0 | -13.0 | -13.6 | -14.0 | -12.5 | -11.1 | -1.9 | -0.3 | -2.5 | -3.4 |
| Net current transfers | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | .. |
| Gross national saving | 13.4 | 17.3 | 8.5 | 10.1 | 15.0 | 16.9 | 2.5 | 2.6 | 2.0 | 13.2 | 7.7 | 4.9 | 12.7 |
| Net Indirect Taxes | 30.7 | 30.0 | 30.1 | 30.0 | 29.2 | 19.3 | 4.9 | 5.2 | 4.4 | 8.9 | 21.8 | 9.7 | .. |
| Indirect Taxes | 30.7 | 30.0 | 30.1 | 30.0 | 29.2 | 24.9 | 23.5 | 21.5 | 22.4 | 23.0 | 29.0 | 13.5 | .. |
| Subsidies | .. | .. | .. | .. | .. | 5.6 | 18.6 | 16.3 | 18.0 | 14.1 | 7.3 | 3.7 | .. |
| Gross national product | 85.5 | 86.6 | 87.1 | 87.0 | 87.0 | 86.4 | 86.0 | 87.5 | 88.9 | 98.1 | 99.7 | 97.5 | 96.6 |

Source: IMF and World Bank Mission estimates

3.4: National Accounts in Constant 1986 Prices
(Growth Rates)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------|------|------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|--------|
| GDP at market prices | 8.3 | 8.3 | 5.8 | 6.0 | 5.7 | 8.3 | 4.5 | 5.1 | 8.5 | -2.0 | -9.9 | -7.6 | -1.3 |
| Net Indirect Taxes | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| GDP at factor cost | 14.1 | 10.7 | 0.9 | -3.8 | 9.4 | 5.8 | -6.4 | 2.4 | 13.8 | 2.2 | -5.4 | -5.9 | -2.5 |
| Agriculture | 10.7 | 9.9 | 9.9 | 8.7 | 5.4 | 2.2 | 2.8 | 3.7 | 11.4 | 2.4 | -12.6 | -15.0 | -4.6 |
| Industry | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Mining and quarrying | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manufacturing | 4.8 | 4.8 | 4.9 | 7.8 | 4.7 | 13.4 | 9.2 | 6.7 | 5.3 | -6.0 | -9.6 | -3.4 | 0.9 |
| Services, etc. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Imports of GMFS | 9.1 | 9.1 | 1.8 | 6.4 | 10.8 | 26.4 | -9.6 | -0.9 | 14.9 | -41.6 | -68.7 | -17.3 | -5.9 |
| Exports of GMFS | 18.7 | 18.7 | 8.9 | 17.4 | 4.5 | 21.9 | -0.8 | 1.4 | -3.5 | -38.8 | -13.0 | 11.0 | 7.8 |
| Resource balance | -3.3 | -3.3 | 3.1 | 2.2 | -16.6 | -30.1 | 16.4 | 3.0 | -32.7 | 43.6 | 75.9 | 95.1 | 862.5 |
| Total Expenditures | 7.1 | 7.1 | 3.6 | 4.1 | 8.1 | 13.3 | -1.1 | 3.3 | 13.6 | -12.3 | -20.5 | -11.8 | -3.6 |
| Total consumption, etc | 4.1 | 4.1 | 19.8 | 3.7 | -1.0 | 4.4 | 25.7 | 6.8 | 11.1 | -13.5 | -10.5 | 7.6 | -11.9 |
| General government | .. | .. | .. | .. | .. | .. | 4.1 | 2.9 | 4.8 | 12.5 | -21.2 | -22.8 | 9.0 |
| Private, etc | .. | .. | .. | .. | -1.0 | -32.7 | 37.6 | 8.5 | 13.6 | -23.1 | -4.9 | 21.0 | -17.8 |
| Statistical discrepancy | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Gross domestic investment | 10.6 | 10.6 | -14.2 | 4.7 | 21.7 | 24.4 | -28.8 | -3.2 | 18.7 | -10.0 | -38.5 | -62.9 | 59.9 |
| GDFI | 6.2 | 6.2 | -16.4 | 12.7 | 9.7 | 13.2 | -5.4 | -1.1 | 10.3 | -29.2 | -40.6 | -26.2 | #ARITH |
| Nonfinancial Pub. Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| General Government | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Central Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| State and Local Govt. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Nonfinancial Pub. Enterp. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Private Sector | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Changes in Stocks | 69.2 | 69.2 | 4.0 | -49.6 | 205.5 | 85.7 | -107.0 | -93.0 | 175.5 | 643.1 | -31.5 | -165.6 | .. |
| Net factor income | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Net current transfers | 9.5 | 9.5 | 6.3 | 6.5 | 6.0 | 9.1 | 4.0 | 6.8 | 10.9 | 8.2 | -8.7 | -10.3 | 0.6 |
| Gross national product | 19.4 | 19.4 | -26.1 | 14.4 | 27.9 | 18.2 | -43.6 | -3.6 | -6.3 | 78.6 | -12.3 | -60.5 | 80.1 |
| Gross domestic saving | 43.3 | 43.3 | -55.0 | 39.6 | 67.9 | 33.7 | -85.3 | 6.2 | 2.3 | 863.2 | -7.0 | -73.7 | 155.4 |
| Gross national saving | 18.7 | 18.7 | 8.9 | 17.4 | 4.5 | 21.9 | -0.8 | 1.4 | -3.5 | -36.6 | -19.7 | 6.5 | 0.0 |
| Capacity to import | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Terms of trade adjustment | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Gross domestic income | 8.3 | 8.3 | 5.8 | 6.0 | 5.7 | 8.3 | 4.5 | 5.1 | 8.5 | -1.5 | -10.9 | -8.3 | -2.7 |
| Gross national income | 9.5 | 9.5 | 6.3 | 6.5 | 6.0 | 9.1 | 4.0 | 6.8 | 10.9 | 8.7 | -9.7 | -11.0 | -0.7 |

Source: IMF and World Bank Mission estimates

3.5: Net Material Product by Sector in Current and Constant 1986 Prices
(Million Tugrik)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | in Current Prices | | | | | | | | | | | | | |
| Total | 1635 | 1807 | 2111 | 2358 | 2384 | 2493 | 2443 | 2520 | 2639 | 2920 | 2915 | 4925 | 15160 | 67820 |
| Industry | 838 | 1008 | 1220 | 1320 | 1250 | 1238 | 1427 | 1406 | 1510 | 1723 | 1687 | 2974 | 13777 | 53814 |
| Agriculture | 342 | 342 | 346 | 353 | 368 | 382 | 423 | 504 | 563 | 617 | 462 | 709 | 921 | 2553 |
| Construction | 563 | 595 | 634 | 670 | 709 | 771 | 741 | 751 | 786 | 774 | 704 | 758 | 1476 | 4510 |
| Transport | 61 | 74 | 83 | 97 | 104 | 110 | 104 | 110 | 120 | 130 | 138 | 199 | 397 | 1122 |
| Communication | 2025 | 2211 | 2308 | 2400 | 2436 | 2516 | 1865 | 2036 | 2130 | 2327 | 2281 | 5349 | 5758 | 18863 |
| Trade, Procurement, material, etc. | 113 | 114 | 124 | 127 | 127 | 127 | 151 | 153 | 142 | 155 | 141 | 226 | 1092 | 4835 |
| Other | | | | | | | | | | | | | | |
| | in Constant 1986 Prices | | | | | | | | | | | | | |
| Total | 1575 | 1714 | 1898 | 2086 | 2260 | 2390 | 2443 | 2511 | 2605 | 2902 | 2892 | 2525 | 2326 | 2168 |
| Industry | 1005 | 1112 | 1269 | 1281 | 1232 | 1348 | 1427 | 1336 | 1367 | 1556 | 1526 | 1448 | 1391 | 1293 |
| Agriculture | 342 | 342 | 346 | 353 | 368 | 382 | 423 | 504 | 563 | 617 | 462 | 386 | 205 | 180 |
| Construction | 481 | 508 | 542 | 573 | 606 | 659 | 741 | 751 | 786 | 774 | 704 | 399 | 324 | 319 |
| Transport | 53 | 64 | 71 | 83 | 89 | 94 | 104 | 110 | 120 | 130 | 138 | 105 | 82 | 83 |
| Communication | 1365 | 1493 | 1546 | 1650 | 1738 | 1771 | 1865 | 2036 | 2130 | 2327 | 2281 | 1995 | 1557 | 1619 |
| Trade, Procurement, material, etc. | 119 | 120 | 130 | 134 | 134 | 134 | 151 | 153 | 142 | 155 | 141 | 152 | 176 | 202 |
| Other | | | | | | | | | | | | | | |

Source: IMF estimates

4.1 BALANCE OF PAYMENTS
(Million US\$)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|--------|--------|--------|--------|--------|---------|--------|--------|---------|--------|--------|-------|--------|
| A. Exports of Goods & Non Factor Service | 476.4 | 567.9 | 612.9 | 649.7 | 638.5 | 825.0 | 907.7 | 910.1 | 832.2 | 492.8 | 370.1 | 390.8 | 384.9 |
| Merchandise (FOB) | 438.0 | 518.6 | 556.7 | 596.2 | 566.9 | 740.8 | 818.8 | 815.8 | 795.8 | 444.8 | 346.5 | 355.8 | 360.3 |
| Nonfactor services | 38.4 | 49.3 | 56.2 | 53.5 | 71.6 | 84.2 | 88.9 | 94.3 | 36.4 | 48.0 | 23.6 | 35.0 | 24.6 |
| B. Imports of Goods & Non Factor Service | 1272.5 | 1393.8 | 1406.6 | 1350.6 | 1406.8 | 1803.8 | 1889.0 | 1851.1 | 2015.9 | 1100.6 | 528.1 | 433.4 | 401.8 |
| Merchandise (FOB) | 1239.7 | 1352.5 | 1362.3 | 1308.7 | 1365.7 | 1838.9 | 1831.6 | 1778.8 | 1911.8 | 1023.6 | 501.2 | 400.0 | 361.2 |
| Nonfactor services | 32.8 | 41.3 | 44.3 | 41.9 | 41.1 | 44.9 | 57.4 | 72.3 | 104.1 | 77.0 | 26.9 | 33.4 | 40.6 |
| C. Resource balance | -796.1 | -825.9 | -793.7 | -700.9 | -768.3 | -1058.8 | -981.3 | -941.0 | -1183.7 | -607.8 | -158.0 | -42.6 | -16.9 |
| D. Net factor income | -10.9 | -20.4 | -31.1 | -39.0 | -45.0 | -1.7 | -11.3 | -34.2 | -48.9 | -43.6 | -2.5 | -27.0 | -21.0 |
| Factor receipts | 0.2 | 0.2 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 7.5 | 5.1 | 2.9 | 0.2 | 4.0 |
| Factor payments | 11.1 | 20.6 | 31.1 | 39.1 | 45.1 | 1.8 | 11.5 | 34.4 | 56.4 | 48.7 | 5.4 | 27.2 | 25.0 |
| Total interest due | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.2 | 0.2 | 10.9 | 8.2 |
| Other factor payments & disc. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| E. Net current transfers | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.3 | -0.3 | 0.0 | 0.0 | 0.0 | -2.9 | 0.0 |
| Current Receipts | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Workers remittances | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other curr. transfers | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Current Payments | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 |
| F. Curr./A/C Bal before Off. Grants | -807.1 | -846.4 | -824.9 | -740.0 | -813.4 | -1060.6 | -992.9 | -975.5 | -1232.6 | -651.4 | -160.5 | -72.5 | -37.9 |
| Off. Capital Grants 2/ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 7.4 | 43.6 | 41.2 | 42.1 |
| Curr./A/C Bal after Off. Grants | -807.1 | -846.4 | -824.9 | -740.0 | -813.4 | -1060.6 | -992.9 | -975.5 | -1228.7 | -644.0 | -116.9 | -31.3 | 4.2 |
| G. LT Capital Inflows | 806.7 | 859.3 | 740.5 | 745.9 | 753.9 | 1051.0 | 1115.8 | 1083.6 | 1228.4 | 516.7 | 130.3 | 87.9 | 57.4 |
| Direct Investment | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 3.0 |
| Net LT Borrowing (DRS) | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 3.7 | 1.8 | -0.8 | 0.2 | 16.2 | 142.3 | 123.0 | 54.4 |
| Disbursements | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 3.7 | 1.8 | 0.0 | 1.0 | 17.4 | 143.2 | 179.0 | 92.4 |
| Repayments due | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 | 1.2 | 0.9 | 56.0 | 38.0 |
| Other LT Inflows (net) | 806.7 | 859.3 | 740.5 | 745.9 | 751.1 | 1047.3 | 1114.0 | 1084.4 | 1228.2 | 500.5 | -12.0 | -37.1 | 0.0 |
| I. Total Other Items (Net) | 0.4 | -9.3 | 81.2 | 10.2 | 90.3 | 9.4 | -88.4 | -128.8 | 17.9 | 74.0 | -105.6 | -69.6 | -49.7 |
| Net short-term capital (DRS) | 0.7 | 7.7 | 0.9 | -0.2 | 3.6 | 30.6 | -20.0 | -76.5 | -33.3 | 66.8 | -23.4 | -57.6 | -49.7 |
| Capital flows n.e.i. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Errors & Omissions | -0.3 | -17.0 | 80.3 | 10.4 | 86.7 | -21.2 | -68.4 | -52.3 | 51.2 | 7.2 | -82.2 | -12.0 | 0.0 |
| J. Change in net reserves | 0.0 | -3.6 | 3.2 | -16.1 | -30.8 | 0.2 | -34.5 | 20.7 | -17.6 | 53.3 | 92.2 | 13.0 | -11.9 |
| Net credit from IMF | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 3.5 | 9.3 |
| Reserve changes n.e.i. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Escrow Account | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| K. Gross Reserves (incl. Gold) | 21.8 | 23.7 | 19.3 | 32.9 | 57.5 | 72.2 | 148.5 | 149.2 | 278.9 | 177.4 | 126.3 | 53.9 | .. |
| L. Nom. Off. (Ann. avg.)(rf) | 3.19 | 3.24 | 3.30 | 3.54 | 3.71 | 3.18 | 2.89 | 2.95 | 2.99 | 4.67 | 25.00 | 40.00 | 295.80 |
| Nom. Off. (End-of-year)(ae) | .. | .. | .. | .. | .. | .. | 2.84 | 3.00 | 3.00 | 5.33 | 40.00 | 40.00 | 295.80 |
| MUY-Manuf. (% change) | 0.4 | -1.5 | -2.3 | -2.1 | 0.8 | 17.9 | 9.8 | 7.3 | -0.7 | 5.7 | 2.1 | 4.3 | .. |

1/ Estimates of imports and exports differ from those reported by the State Statistical Office (Tables 5.1 and 6.1).

2/ Indicate above as All Official Transfers OR Capital Grants only.

Source: IMF estimates.

5.1 : Merchandise Exports by Destination
(Million US\$)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TOTAL EXPORTS | 689.1 | 716.1 | 717.9 | 739.1 | 721.5 | 660.7 | 348.0 | 355.7 | 360.9 |
| Austria | 0.3 | 0.1 | 0.1 | 0.1 | 1.8 | .. | 0.1 | 0.2 | 0.5 |
| USA | 0.1 | 0.1 | 0.1 | 1.5 | 0.1 | 0.9 | 0.3 | 4.0 | 4.0 |
| United Kingdom | 2.8 | 2.8 | 3.9 | 1.6 | 4.9 | 3.0 | 1.9 | 3.5 | 1.2 |
| Afghanistan | .. | .. | .. | .. | .. | 1.5 | 3.2 | 0.7 | 0.1 |
| Bulgaria | 13.1 | 16.7 | 15.4 | 14.6 | 21.6 | 16.7 | 1.5 | 6.6 | 0.1 |
| USSR */ | 530.7 | 563.3 | 559.7 | 558.7 | 528.4 | 517.5 | 235.2 | 205.3 | 191.3 |
| Italy | 0.9 | 0.1 | 0.3 | 0.1 | 1.8 | 5.5 | 4.7 | 8.2 | 9.5 |
| Netherlands | 6.9 | 3.7 | 4.6 | 3.0 | 5.8 | 1.5 | 0.5 | 1.6 | 1.1 |
| Poland | 19.0 | 14.2 | 15.2 | 18.7 | 14.3 | 11.2 | 0.2 | 0.4 | 0.0 |
| Romania | 15.8 | 13.0 | 13.4 | 18.5 | 14.9 | 10.1 | 0.1 | 0.0 | 0.1 |
| North Korea | 5.5 | 12.7 | 7.9 | 5.8 | 6.0 | 7.8 | 1.1 | 1.2 | 0.8 |
| Singapore | .. | .. | .. | .. | .. | .. | 0.1 | 0.6 | 0.3 |
| Hongkong | .. | .. | .. | .. | .. | .. | 3.9 | 3.6 | 1.2 |
| Hungary | 14.8 | 13.4 | 12.8 | 13.9 | 17.9 | 13.7 | 9.2 | 2.5 | 0.1 |
| France | 0.3 | 0.4 | 0.3 | 0.4 | 0.1 | 2.7 | 1.1 | 0.8 | 0.9 |
| China | 2.7 | 3.3 | 3.7 | 3.1 | 4.2 | 11.3 | 52.8 | 55.2 | 111.5 |
| Germany | 24.3 | 24.6 | 24.5 | 22.5 | 22.5 | 13.7 | 10.2 | 11.2 | 3.0 |
| Czechoslovakia | 31.5 | 27.2 | 29.3 | 30.6 | 29.6 | 29.9 | 4.3 | 4.1 | 0.4 |
| Switzerland | 6.6 | 8.4 | 8.4 | 8.4 | 7.9 | 1.2 | 1.0 | 16.4 | 10.4 |
| Yugoslavia | 3.3 | 2.1 | 3.6 | 10.0 | 9.7 | 2.8 | 1.9 | 1.8 | 0.1 |
| Japan | 7.6 | 6.3 | 8.4 | 21.9 | 24.5 | 7.6 | 11.7 | 18.5 | 17.0 |

*/ Commonwealth of Independent States

Note: Customs Basis

Source: State Statistical Office

5.2: Percentage Shares of Merchandise Exports by Destination
(in percentage)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TOTAL EXPORTS | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Austria | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | | 0.0 | 0.1 | 0.1 |
| USA | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.1 | 1.1 | 1.1 |
| United Kingdom | 0.4 | 0.4 | 0.5 | 0.2 | 0.7 | 0.5 | 1.1 | 1.0 | 0.3 |
| Afghanistan | .. | .. | .. | .. | .. | 0.2 | 0.2 | 0.2 | 0.0 |
| Bulgaria | 1.9 | 2.3 | 2.1 | 2.0 | 3.0 | 2.5 | 0.4 | 1.9 | 0.0 |
| USSR */ | 77.0 | 78.7 | 78.0 | 75.6 | 73.2 | 78.3 | 67.6 | 57.7 | 53.0 |
| Italy | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 1.4 | 2.3 | 2.6 |
| Netherlands | 1.0 | 0.5 | 0.6 | 0.4 | 0.8 | 0.2 | 0.1 | 0.5 | 0.3 |
| Poland | 2.8 | 2.0 | 2.1 | 2.5 | 2.0 | 1.7 | 0.1 | 0.1 | 0.0 |
| Romania | 2.3 | 1.8 | 1.9 | 2.5 | 2.1 | 1.5 | 0.0 | 0.0 | 0.0 |
| North Korea | 0.8 | 1.8 | 1.1 | 0.8 | 0.8 | 1.2 | 0.3 | 0.3 | 0.2 |
| Singapore | .. | .. | .. | .. | .. | .. | 0.0 | 0.2 | 0.1 |
| Hongkong | .. | .. | .. | .. | .. | .. | 1.1 | 1.0 | 0.3 |
| Hungary | 2.1 | 1.9 | 1.8 | 1.9 | 2.5 | 2.1 | 2.6 | 0.7 | 0.0 |
| France | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.4 | 0.3 | 0.2 | 0.2 |
| China | 0.4 | 0.5 | 0.5 | 0.4 | 0.6 | 1.7 | 15.2 | 15.5 | 30.9 |
| Germany | 3.5 | 3.4 | 3.4 | 3.0 | 3.1 | 2.1 | 2.9 | 3.2 | 0.8 |
| Czechoslovakia | 4.6 | 3.8 | 4.1 | 4.1 | 4.1 | 4.5 | 1.2 | 1.2 | 0.1 |
| Switzerland | 1.0 | 1.2 | 1.2 | 1.1 | 1.1 | 0.2 | 0.3 | 4.6 | 2.9 |
| Yugoslavia | 0.5 | 0.3 | 0.5 | 1.4 | 1.3 | 0.4 | 0.5 | 0.5 | 0.0 |
| Japan | 1.1 | 0.9 | 1.2 | 3.0 | 3.4 | 1.2 | 3.4 | 5.2 | 4.7 |

*/ Commonwealth of Independent States

Note: Customs Basis

Source: State Statistical Office

(Physical Units)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Copper Concentrate, thou.t | 342.7 | 345.9 | 345.5 | 346.0 | 350.6 | 347.5 | 243.6 | 346.0 | 394.4 |
| Molibdenum Concentrate, t | 3017.0 | 3209.0 | 3324.0 | 3271.5 | 3312.0 | 3990.4 | 3167.2 | 2975.1 | 2908.1 |
| Tin Concentrate, t | .. | .. | .. | .. | .. | 269.0 | .. | 97.2 | 39.8 |
| Flour Spar Concentrate, thou.t | 787.3 | 592.3 | 573.6 | 394.2 | 190.5 | 779.5 | 114.3 | 97.2 | 77.2 |
| Flour Spar Standard | .. | .. | .. | .. | .. | 179.5 | .. | 166.4 | 79.5 |
| Flour Spar Non standard, thou.t | .. | .. | .. | .. | .. | 313.9 | .. | .. | .. |
| Copper Scrap, thou.t | .. | .. | .. | .. | .. | 5339.4 | .. | 1810.7 | .. |
| Coal, thou.t | 225.0 | 300.0 | 610.7 | 1040.8 | 776.0 | 490.2 | 120.8 | 78.1 | .. |
| Cement, thou.t | .. | 132.5 | 216.8 | 156.5 | 175.0 | 95.4 | .. | 16.2 | 13.3 |
| Timber, thou.m3 | 58.7 | 39.0 | 39.4 | 19.8 | 31.4 | 19.9 | .. | .. | 68.2 |
| Sawn wood, thou.m3 | 136.1 | 121.3 | 126.1 | 93.6 | 71.1 | 42.5 | 90.2 | 71.9 | 13.6 |
| Scoured wool, thou.t | 5.7 | 5.1 | 5.0 | 4.9 | 3.5 | 2.8 | 2.2 | 7.1 | 5.5 |
| Two-toothed sheep's/lamb's wool, thou.t | 2.0 | 2.0 | 2.1 | 1.9 | 1.4 | 0.5 | .. | .. | .. |
| Camel's wool, thou.t | 2.6 | 2.7 | 2.2 | 2.4 | 2.1 | 1.9 | 0.1 | 1.7 | 2.9 |
| Goat down, thou.t | 0.6 | 0.4 | 0.4 | 0.5 | 0.2 | 0.4 | 0.6 | 1.6 | 1.4 |
| Horse mane, thou.t | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 | .. | 0.2 | 0.2 |
| Horse skins, thou.t | 58.0 | 81.3 | 60.2 | 132.0 | 124.7 | 105.2 | 78.3 | 10.8 | 154.5 |
| Sheep skins, thou.pieces | 280.2 | 278.4 | 275.0 | 253.5 | 289.0 | 130.0 | 131.0 | 1048.9 | 3300.7 |
| Goat skins, thou.pieces | 526.2 | 240.7 | 252.0 | 214.0 | 30.0 | 113.2 | 101.0 | 176.3 | 509.4 |
| Glazed kid leather (goat), thou. pieces | 236.6 | 301.1 | 314.0 | 307.1 | 180.0 | 172.0 | .. | .. | .. |
| Chevyrette, thou.pieces | 411.0 | 299.1 | 195.7 | 164.8 | 93.8 | 24.1 | .. | .. | .. |
| Leather clothes, thou.pieces | 321.5 | 281.0 | 302.4 | .. | 75.3 | 87.0 | 135.5 | 122.1 | .. |
| Skin goods, mln togrog | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Carpets, mln sq m | 1.5 | 1.5 | 1.7 | 1.7 | 1.9 | 1.7 | 0.1 | 0.3 | 0.5 |
| Woollen fabrics, thou.m | 34.6 | 45.0 | 45.2 | 45.0 | 37.2 | .. | .. | 17.7 | 3.6 |
| Woollen blankets, thou.pieces | 313.9 | 366.7 | 369.2 | 326.0 | 377.0 | 336.4 | 46.2 | 38.0 | 15.5 |
| Goat down goods, thou.pieces | 236.5 | 292.7 | 298.1 | 291.0 | 270.6 | 275.7 | 26.1 | 141.5 | 80.6 |
| Camel woollen goods, thou.pieces | 16.1 | 22.3 | 26.2 | 24.3 | 21.7 | 23.2 | 18.3 | 6.8 | 6.5 |
| Marmot skins, thou.pieces | 578.8 | 764.8 | 865.2 | 981.6 | 331.5 | 73.0 | 81.0 | 39.8 | 78.9 |
| Wheat, thou.t | 6.2 | 3.7 | 4.8 | 93.6 | 31.0 | .. | .. | 0.7 | .. |
| Vodka, thou.l | 350.0 | 275.0 | 416.1 | 220.7 | 140.8 | 186.4 | .. | 29.4 | .. |
| Meat, thou.t | 36.8 | 43.9 | 38.5 | 29.0 | 30.5 | 24.3 | 21.8 | 8.3 | 3.3 |
| Livestock, thou.t | 24.7 | 30.0 | 31.3 | 21.6 | 21.6 | 20.8 | 20.1 | 0.1 | .. |
| Horses, thou.head | 63.1 | 64.0 | 64.0 | 64.0 | 64.0 | 42.3 | 23.2 | .. | .. |
| Intestine, thou.rolls | 2858.6 | 3080.9 | 3298.8 | 2931.7 | 2953.4 | 2163.8 | 493.6 | 2200.0 | 1301.7 |

Note: Customs Basis

Source: State Statistical Office

6.1: Merchandise Imports by Origin

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| TOTAL IMPORTS | 1095.5 | 1139.7 | 1104.6 | 1113.6 | 963.0 | 924.0 | 360.9 | 400.0 | 361.5 |
| Austria | 3.1 | 5.7 | 3.4 | 4.0 | 9.6 | 10.0 | 17.4 | 19.3 | 1.9 |
| United Kingdom | 0.7 | 0.3 | 0.4 | 2.9 | 4.2 | 2.5 | 0.8 | 1.5 | 2.8 |
| Belgium | 0.1 | .. | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | .. | 0.8 |
| Bulgaria | 10.9 | 13.1 | 10.6 | 10.8 | 13.8 | 17.0 | 1.3 | 0.5 | 0.3 |
| USSR */ | 951.6 | 988.8 | 963.6 | 957.2 | 797.2 | 716.2 | 238.3 | 209.6 | 217.1 |
| Italy | 0.1 | 0.3 | 1.3 | 1.2 | 4.9 | 3.6 | 2.1 | 1.0 | 0.5 |
| Netherlands | .. | 1.5 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 | 0.1 | 1.3 |
| Denmark | .. | .. | .. | 0.2 | 1.1 | 0.1 | 0.6 | 2.8 | 3.8 |
| South Korea | .. | .. | .. | .. | .. | 0.9 | 7.3 | 8.0 | 2.6 |
| Poland | 15.2 | 16.9 | 13.3 | 15.0 | 15.7 | 13.2 | 0.3 | 1.2 | 0.2 |
| Romania | 18.1 | 16.0 | 11.8 | 13.2 | 11.1 | 6.3 | 0.6 | 0.1 | .. |
| North Korea | 5.2 | 6.0 | 11.6 | 9.9 | 6.1 | 5.5 | 1.2 | 0.3 | 0.6 |
| Singapore | .. | .. | .. | 0.2 | 0.4 | 0.7 | 0.9 | 5.7 | 3.3 |
| Hongkong | .. | .. | .. | 0.1 | .. | 2.7 | 0.8 | 9.0 | 9.9 |
| Hungary | 12.8 | 13.6 | 12.5 | 13.2 | 11.9 | 20.5 | 3.2 | 4.2 | 0.0 |
| France | 0.4 | 0.3 | 0.3 | 0.2 | 0.4 | 2.4 | 0.1 | 7.3 | 4.4 |
| China | 4.9 | 9.6 | 15.8 | 12.9 | 19.9 | 22.3 | 16.3 | 48.8 | 60.9 |
| Germany | 29.7 | 27.3 | 25.8 | 24.9 | 25.9 | 37.4 | 12.5 | 21.6 | 6.2 |
| Czechoslovakia | 29.0 | 27.2 | 20.9 | 33.1 | 20.7 | 34.0 | 9.7 | 5.4 | 0.5 |
| Switzerland | 1.3 | 3.4 | 1.3 | 3.4 | 4.1 | 5.9 | 6.6 | 4.1 | 2.0 |
| Yugoslavia | 6.3 | 2.5 | 2.5 | 1.8 | 3.6 | 8.7 | 0.8 | 2.3 | 3.2 |
| Japan | 1.8 | 3.4 | 2.7 | 5.0 | 6.9 | 9.8 | 2.8 | 39.9 | 18.4 |

*/ Commonwealth of Independent States

Note: Customs Basis

Source: State Statistical Office

6.2: Percentage Shares of Merchandise Imports by Origin

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TOTAL IMPORTS | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Austria | 0.3 | 0.5 | 0.3 | 0.4 | 1.0 | 1.1 | 4.8 | 4.8 | 0.5 |
| United Kingdom | 0.1 | 0.0 | 0.0 | 0.3 | 0.4 | 0.3 | 0.2 | 0.4 | 0.8 |
| Belgium | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.2 |
| Bulgaria | 1.0 | 1.1 | 1.0 | 1.0 | 1.4 | 1.8 | 0.4 | 0.1 | 0.1 |
| USSR */ | 86.9 | 86.8 | 87.2 | 86.0 | 82.8 | 77.5 | 66.0 | 52.4 | 60.1 |
| Italy | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.4 | 0.6 | 0.2 | 0.1 |
| Netherlands | | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 |
| Denmark | | | | 0.0 | 0.1 | 0.0 | 0.2 | 0.7 | 1.1 |
| South Korea | | | | | | 0.1 | 2.0 | 2.0 | 0.7 |
| Poland | 1.4 | 1.5 | 1.2 | 1.3 | 1.6 | 1.4 | 0.1 | 0.3 | 0.1 |
| Romania | 1.7 | 1.4 | 1.1 | 1.2 | 1.2 | 0.7 | 0.2 | 0.0 | |
| North Korea | 0.5 | 0.5 | 1.1 | 0.9 | 0.6 | 0.6 | 0.3 | 0.1 | 0.2 |
| Singapore | | | | 0.0 | 0.0 | 0.1 | 0.2 | 1.4 | 0.9 |
| Hongkong | | | | 0.0 | | 0.3 | 0.2 | 2.3 | 2.7 |
| Hungary | 1.2 | 1.2 | 1.1 | 1.2 | 1.2 | 2.2 | 0.9 | 1.1 | 0.0 |
| France | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 1.8 | 1.2 |
| China | 0.4 | 0.8 | 1.4 | 1.2 | 2.1 | 2.4 | 4.5 | 12.2 | 16.8 |
| Germany | 2.7 | 2.4 | 2.3 | 2.2 | 2.7 | 4.0 | 3.5 | 5.4 | 1.7 |
| Czechoslovakia | 2.6 | 2.4 | 1.9 | 3.0 | 2.1 | 3.7 | 2.7 | 1.4 | 0.1 |
| Switzerland | 0.1 | 0.3 | 0.1 | 0.3 | 0.4 | 0.6 | 1.8 | 1.0 | 0.6 |
| Yugoslavia | 0.6 | 0.2 | 0.2 | 0.2 | 0.4 | 0.9 | 0.2 | 0.6 | 0.9 |
| Japan | 0.2 | 0.3 | 0.2 | 0.4 | 0.7 | 1.1 | 0.8 | 10.0 | 5.1 |

*/ Commonwealth of Independent States

Note: Customs Basis

Source: State Statistical Office

6.3: Major Import Commodities

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|
| Cranes | 102 | 55 | 7 | 57 | 43 | 31 | 15 | 2 | 2 |
| Excavators, tractors, self-propelled | 121 | 60 | 38 | 92 | 83 | 76 | 2 | 1 | 232 |
| Machines | 375 | 695 | 681 | 815 | 624 | 390 | 50 | .. | .. |
| Trucks | 1670 | 1546 | 1597 | 1490 | 1069 | 927 | 65 | 277 | 304 |
| Buses | 224 | 319 | 208 | 343 | 249 | 246 | 69 | 56 | 82 |
| Cars | 1 | 551 | 620 | 485 | 354 | 300 | 45 | 634 | 1176 |
| Disel oil,1000 t | 312 | 328 | 349 | 347 | 321 | 364 | 264 | 147 | 282 |
| Motor gasoline,1000 t | 315 | 329 | 358 | 375 | 339 | 341 | 218 | 210 | 179 |
| Heavy oil,1000 t | 68 | 55 | 63 | 61 | 54 | 63 | 73 | 46 | 57 |
| Lubricants,1000 t | 23 | 24 | 24 | 31 | 22 | 21 | 4 | 12 | 10 |
| Nitrogenous fertilizers,1000 t | 22 | 19 | 18 | 22 | 15 | 9 | 0 | .. | 5 |
| Phosphatic fertilizers,1000 t | 14 | 14 | 14 | 14 | 21 | 20 | 0 | .. | 4 |
| Cement,1000 t | 107 | 49 | 47 | 46 | 48 | 39 | 4 | .. | 1 |
| Window glass,thous.sq m | 657 | 1010 | 1050 | 894 | 712 | 477 | 2 | .. | 43 |
| Paper,1000 t | 10 | 9 | 11 | 9 | 8 | 9 | 6 | .. | 0 |
| Wheat,1000 t | 17 | 7 | 3 | .. | 2 | .. | .. | .. | 1 |
| Cooking Oil,1000 t | 2.1 | 1.4 | 2.5 | 2.6 | 2.7 | 2.1 | 1.1 | 0.8 | 0.8 |
| Sugar,1000 t | 34 | 42 | 41 | 43 | 44 | 48 | .. | .. | 14 |
| Rice,1000 t | 13 | 12 | 16 | 16 | 13 | 19 | 15 | .. | 30 |
| Green tea,1000 t | 5.2 | 5.3 | 5.0 | 4.2 | 4.0 | 6.9 | 4.1 | 2.9 | 6.2 |
| Fresh fruits,1000 t | 1.4 | 2.6 | 2.8 | 3.1 | 3.4 | 3.5 | 1.2 | .. | 1.0 |
| Woolen fabrics,mln m | 1.6 | 1.4 | 1.7 | 1.4 | 0.8 | 0.9 | 0.2 | .. | 0.3 |
| Silk,mln m | 7.0 | 8.3 | 5.7 | 4.5 | 4.1 | 3.8 | 0.7 | .. | 1.0 |
| Sewing machines,1000 pieces | 10 | 10 | 14 | 11 | 2 | 7 | 2 | .. | 5 |
| Refrigerators,1000 pieces | 17 | 13 | 15 | 18 | 12 | 1 | 7 | .. | 1 |
| Washing machines,1000 pieces | 5 | 7 | 5 | 8 | 3 | 6 | 2 | .. | 0 |
| Television sets,1000 pieces | 10 | 11 | 18 | 20 | 8 | 19 | 0 | .. | 10 |

Note: Customs Basis

Source: State Statistical Office

7.1 EXTERNAL DEBT: DISBURSEMENTS AND REPAYMENTS
(Million US\$)

| | 1990 | 1991 | 1992 | 1993 |
|---|------|-------|-------|-------|
| A. Disbursements | | | | |
| Public & Publicly Guar. LT Debt | 17.4 | 143.2 | 179.3 | 92.9 |
| 1. Official Creditors | 0.0 | 87.1 | 104.0 | 92.9 |
| a. Multilateral | 0.0 | 13.0 | 44.0 | 32.0 |
| of which IDA | 0.0 | 0.0 | 28.0 | 14.0 |
| of which IBRD | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Bilateral | 0.0 | 74.1 | 60.0 | 60.9 |
| 2. Private Creditors | 17.4 | 56.1 | 75.0 | 0.0 |
| a. Bonds | 0.0 | 0.0 | 18.0 | 0.0 |
| b. Commercial Banks | 1.3 | 0.0 | 58.0 | 0.0 |
| c. Other Private | 16.1 | 56.1 | -1.0 | 0.0 |
| Private Non-Guaranteed LT | 0.0 | 0.0 | 0.0 | 0.0 |
| Total LT Disbursements | 17.4 | 143.2 | 179.0 | 92.4 |
| IMF Purchases | 0.0 | 15.4 | 3.5 | 9.3 |
| Net Short-Term Capital | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Disbursements | 17.4 | 158.6 | 182.5 | 102.5 |
| Repayments Due 1/ Public & Publicly Guar. LT | 1.2 | 0.9 | 56.0 | 38.0 |
| 1. Official Creditors | 0.0 | 0.0 | 0.0 | 9.0 |
| a. Multilateral | 0.0 | 0.0 | 0.0 | 1.0 |
| of which IDA | 0.0 | 0.0 | 0.0 | 0.0 |
| of which IBRD | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Bilateral | 0.0 | 0.0 | 0.0 | 8.0 |
| 2. Private Creditors | 1.2 | 0.9 | 56.0 | 29.0 |
| a. Bonds | 0.0 | 0.0 | 16.0 | 29.0 |
| b. Commercial Banks | 0.4 | 0.4 | 40.0 | 0.0 |
| c. Other Private | 0.8 | 0.5 | 0.0 | 0.0 |
| Private Non-Guaranteed LT Debt | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjust: Principal not paid /2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjust: Arrears Red/Prepay (-) /2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total LT Repayments Due | 1.2 | 0.9 | 56.0 | 38.0 |
| IMF Repurchases | 0.0 | 0.0 | 0.0 | 0.0 |
| Total LT Repay + IMF Repur. | 1.2 | 0.9 | 56.0 | 38.0 |
| NET FLOWS | | | | |
| 1. Official Creditors | 0.0 | 87.1 | 104.0 | 83.9 |
| of which IDA | 0.0 | 0.0 | 28.0 | 14.0 |
| of which IBRD | 0.0 | 0.0 | 0.0 | 0.0 |
| Commitments | | | | |
| IBRD commitments | 0.0 | 0.0 | 0.0 | 0.0 |
| of which fast Disbursing | 0.0 | 0.0 | 0.0 | 0.0 |
| IDA commitments | 0.0 | 35.0 | 0.0 | 0.0 |
| of which fast Disbursing | 0.0 | 0.0 | 0.0 | 0.0 |

1/ Historical years on a cash basis

2/ Historical years only

Source: 1990-92: from the World Bank's Debt Reporting System, 1993: Mission estimates.

7.2: EXTERNAL DEBT: INTEREST PAYMENTS AND DEBT OUTSTANDING
(Million US\$)

| | 1990 | 1991 | 1992 | 1993 |
|-----------------------------------|------|-------|-------|-------|
| Interest Due /1 | | | | |
| Public & Publicly Guar. LT | | | | |
| 1. Official Creditors | | | | |
| a. Multilateral | 0.2 | 0.1 | 9.0 | 5.0 |
| of which IDA | 0.0 | 0.0 | 0.0 | 1.0 |
| of which IBRD | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Bilateral | 0.0 | 0.0 | 0.0 | 0.0 |
| 2. Private Creditors | 0.2 | 0.1 | 9.0 | 4.0 |
| a. Bonds | 0.0 | 0.0 | 4.0 | 3.0 |
| b. Commercial Banks | 0.0 | 0.0 | 5.0 | 1.0 |
| c. Other Private | 0.2 | 0.1 | 0.0 | 0.0 |
| Private Non-Guaranteed LT debt | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjust: Interest not paid /2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjust: Reduction in arrears(-)/2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total LT interest due | 0.2 | 0.1 | 9.0 | 5.0 |
| IMF Service Charges | 0.0 | 0.1 | 1.2 | 0.9 |
| Interest on ST debt | 0.0 | 0.0 | 0.7 | 2.4 |
| Total interest due | 0.2 | 0.2 | 10.9 | 8.2 |
| Debt Outstanding and Disbursed | | | | |
| Public & Publicly Guar. LT | | | | |
| 1. Official Creditors | 25.4 | 173.8 | 295.0 | 348.4 |
| a. Multilateral | 0.0 | 89.3 | 192.0 | 275.9 |
| of which IDA | 0.0 | 13.4 | 56.0 | 87.0 |
| of which IBRD | 0.0 | 0.0 | 27.0 | 41.0 |
| b. Bilateral | 0.0 | 75.9 | 0.0 | 0.0 |
| 2. Private Creditors | 25.3 | 84.5 | 103.0 | 72.5 |
| a. Bonds | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Commercial Banks | 2.2 | 1.8 | 20.0 | 19.0 |
| c. Other Private | 23.1 | 82.7 | -1.0 | -1.5 |
| Private Non-Guaranteed LT | 0.0 | 0.0 | 0.0 | 0.0 |
| Total LT DOD | 25.4 | 173.8 | 295.0 | 348.4 |
| Use of IMF Credit | 0.0 | 16.1 | 18.9 | 28.2 |
| Short-Term Debt | 0.0 | 0.2 | 59.4 | 9.9 |
| Total External Debt | 25.4 | 190.1 | 373.3 | 386.4 |
| Memorandum Items: | | | | |
| % Debt on Concessional Terms | 0.0 | 49.7 | 50.8 | .. |
| % Debt at Variable Int. Rates | 0.0 | 13.2 | 11.8 | .. |
| % Bilateral Debt on Conc. terms | 0.0 | 39.9 | 25.9 | .. |
| % Multilat. debt on Conc. terms | 0.0 | 5.5 | 14.3 | .. |
| Pref. Creditor Debt Service | 0.0 | 10.0 | 2.3 | .. |
| Share of IBRD portfolio | 0.0 | 0.0 | 0.0 | .. |

1/ Creditor detail for historical years on cash basis; see adjustment for total due on scheduled basis.

2/ Historical years only

Source: 1990-92: from the World Bank's Debt Reporting System, 1993: Mission estimates.

9.1: GOVERNMENT BUDGET
(Million Tugrik)

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Bugd. Est |
|--|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------------------|
| Direct Taxes | 1120 | 1353 | 1487 | 1597 | 1750 | 1883 | 2048 | 2017 | 2337 | 2088 | 2586 | 5475 | 25036 | 22888 |
| Indirect Taxes | 2277 | 2465 | 2633 | 2700 | 2736 | 2295 | 2281 | 2490 | 2709 | 2412 | 5493 | 5810 | 27445 | 44964 |
| Montax Receipts | 323 | 364 | 358 | 384 | 432 | 151 | 179 | 144 | 165 | 794 | 886 | 1639 | 2823 | 5578 |
| Total Current Revenues | 3720 | 4182 | 4478 | 4680 | 4918 | 4329 | 4508 | 4651 | 5211 | 5295 | 8965 | 12924 | 55304 | 73430 |
| Interest on External Debt | 40 | 78 | 113 | 139 | 168 | 7 | 33 | .. | .. | 71 | 345 | 186 | 2031 | 3570 |
| Interest on Domestic Debt | .. | .. | .. | .. | .. | 1950 | 819 | 822 | 809 | 865 | 3634 | 3100 | 13773 | 16979 |
| Other Current Transfers (Economic Servic | .. | .. | .. | .. | .. | 516 | 1802 | 1554 | 1666 | 1746 | 1851 | 1648 | 3873 | 3504 |
| Subsidies | .. | .. | .. | .. | .. | 2273 | 2384 | 2475 | 2492 | 2753 | 3948 | 8467 | 32233 | 41777 |
| Consumption | .. | .. | .. | .. | .. | 4846 | 5038 | 4851 | 4966 | 5435 | 9778 | 13401 | 51910 | 65830 |
| Total Current Expenditures | 3572 | 3960 | 4196 | 4468 | 4625 | -517 | -530 | -200 | 246 | -140 | -813 | -477 | 3394 | 7600 |
| Budgetary Savings | 148 | 222 | 282 | 213 | 293 | 2 | 3 | 2 | 3 | 6 | 0 | 12 | 0 | 0 |
| Capital Revenues | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Capital Transfers | .. | .. | .. | .. | .. | 0 | 0 | 295 | 417 | 72 | 617 | 4724 | 31196 | 20300 |
| Budgetary Investment | .. | .. | .. | .. | .. | 1131 | 1293 | 1515 | 1630 | 1204 | 402 | 273 | 3293 | 42505 |
| Total Capital Expenditures | 574 | 662 | 796 | 777 | 936 | 1131 | 1293 | 1810 | 2047 | 1276 | 1019 | 4997 | 34489 | 62805 |
| Total Deficit Financing | 425 | 440 | 514 | 564 | 643 | 1646 | 1819 | 2010 | 1801 | 1416 | 1832 | 5474 | 31095 | 55205 |
| External Capital Grants | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1560 | 24629 | 27270 |
| External Borrowing (net) | 525 | 513 | 544 | 612 | 683 | 1701 | 1852 | 2016 | 1608 | 1098 | 1826 | 3248 | 8234 | 31435 |
| Monetary System Credit (net) | .. | .. | .. | .. | .. | -420 | -46 | -6 | 193 | 318 | -195 | 442 | -1768 | -3500 |
| Other Domes. Borrowing (net) | -99 | -73 | -30 | -48 | -40 | 365 | 13 | 0 | 0 | 0 | 201 | 224 | 0 | 0 |
| Debt (at end of year) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| External Debt | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| (in millions of Yuan) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| (in millions of US\$) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Domestic Debt | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| To Monetary System | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Other Domestic Debt (Private) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Memorandum Item: | 385 | 362 | 400 | 426 | 475 | 1639 | 1786 | 2010 | 1801 | 1345 | 1487 | 5288 | 29064 | 51635 |
| Primary Deficit | | | | | | | | | | | | | | |

Source: IMF estimates

9.2: General Government Revenue
(Million Tugrik)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|------------------------------------|------|------|------|------|-------|-------|---------------------|
| Total Revenue | 4651 | 5211 | 5295 | 8965 | 12924 | 55304 | 73430 |
| Current revenue | 4649 | 5209 | 5288 | 8965 | 12912 | 55304 | 73430 |
| Tax revenue | 4363 | 4836 | 4262 | 5054 | 10046 | 48779 | 61068 |
| Corporate tax | 1976 | 2291 | 2043 | 2486 | 5235 | 23814 | 22055 |
| Individual income tax | 41 | 47 | 45 | 100 | 240 | 1222 | 833 |
| Taxes on goods, services & other | 2346 | 2499 | 2174 | 2468 | 4571 | 23743 | 38180 |
| Excise tax | | | 372 | 814 | 2014 | 3866 | 5878 |
| Alcohol | | | 354 | 790 | 1740 | 3822 | 5878 |
| Jewelry | | | 18 | 24 | 274 | 44 | |
| Domestic Sales tax | | | | | | 3045 | 6758 |
| Motor vehicle tax | 4 | 4 | 4 | 8 | 9 | 418 | 478 |
| Petroleum tax | | | 383 | 779 | 1006 | 2275 | 5938 |
| Oth. taxes on external trade/2 | | | 1416 | 572 | | 4160 | 8003 |
| Customs & import surcharge | | | | 295 | 1542 | 6398 | 10602 |
| Copper tax | | | | | | 3000 | |
| Other taxes | | | | | | 581 | 523 |
| Social security /1 | 270 | 300 | 209 | 842 | 948 | 3060 | 4692 |
| Fees, charges and other | 32 | 31 | 23 | 93 | 186 | 642 | 2092 |
| Natural resources fee | | | 2 | 60 | 88 | 259 | 1326 |
| Forestry fee | | | 16 | 6 | 35 | 40 | 41 |
| Land fee | | | | 4 | 20 | 230 | 365 |
| Water use | | | | 2 | 8 | 21 | 54 |
| Stamp fees | | | 3 | 22 | 26 | 82 | 300 |
| Market fees | | | 1 | 1 | | | |
| Other | | | | | 9 | 10 | 6 |
| Special operations & timing adj./3 | -160 | -123 | | 2090 | 94 | | |
| Non Tax revenue /2 | 144 | 165 | 794 | 886 | 1639 | 2823 | 5578 |
| Capital revenue | 2 | 3 | 6 | | 12 | | |

Source: IMF

/1 Net of payroll taxes and transfers to the social security system included in budget outlays. In 1988-9, also includes other payroll taxes.

/2 Montaxes include some onetime export price differentials after 1989.

/3 Mainly taxation of unrealized windfall gains owing to price liberalization.

9.3: General Government Expenditure /1
(Million Tugrik)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|-------------------------------------|------|------|------|-------|-------|-------|---------------------|
| Total Expenditure /2 | 6661 | 7012 | 6711 | 10797 | 18398 | 86399 | 128635 |
| Current expenditure | 4851 | 4966 | 5435 | 9778 | 13401 | 51910 | 65830 |
| Wages | 877 | 902 | 904 | 1848 | 2935 | 8587 | 14618 |
| Goods and services | 1598 | 1589 | 1848 | 2099 | 5532 | 23646 | 27159 |
| Subsidies and transfers /3 | 2376 | 2474 | 2611 | 5485 | 4748 | 17646 | 20483 |
| Subsidies | 1554 | 1666 | 1746 | 1851 | 1648 | 3873 | 3504 |
| Transfers | 822 | 809 | 865 | 3634 | 3100 | 13773 | 16979 |
| Social security | 800 | 803 | 865 | 2325 | 2672 | 13416 | 16806 |
| Other transfers | 22 | 6 | | 1309 | 428 | 357 | 173 |
| Interest payments | | | 71 | 345 | 186 | 2031 | 3570 |
| Capital expenditure and net lending | 1810 | 2047 | 1276 | 1019 | 4997 | 34489 | 62805 |
| Budgetary investments | 1515 | 1630 | 1204 | 402 | 273 | 3293 | 42505 |
| Reserve fund and other | 295 | 417 | 72 | 617 | 725 | 740 | 1456 |
| Off-budget capital expenditure | | | | | 2234 | 20668 | 41049 |
| Lending and other | | | | | 1765 | 9788 | 20300 |

Source: IMF

/1 Because of conceptual changes in budgetary accounting and off-budget operations, historical data are preliminary. The data for 1992 include off-budgetary capital expenditures, lending, etc.

/2 The 1992 figure comparable with 1991 is Tug 12,195.8 million.

/3 Some of the subsidies & transfers were off-budget, and are not comparable with the official budget presentation from the beginning of 1990.

/4 In 1994 budgetary investment is defined as the sum of reserve fund and off-budget capital expenditure.

9.5: Detailed Subsidies
(Million Tugrik in Current Prices)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|------------------------------------|------|------|------|------|------|------|---------------------|
| TOTAL | 1554 | 1666 | 1746 | 1851 | 1648 | 3873 | 3504 |
| of which | | | | | | | |
| Energy | 102 | 133 | 166 | 417 | 60 | 10 | |
| Children Clothing | 96 | 104 | 108 | 109 | | | |
| Milk | 29 | 39 | 37 | 44 | 2 | | |
| Mapping Office | 15 | 16 | 17 | 19 | 15 | | |
| Agricultural Incentives | 159 | 144 | 113 | 33 | | | |
| Urban Transport | 30 | 23 | 32 | 14 | 143 | 1090 | 1000 |
| Bread | | 9 | 8 | | | | |
| Meat | 31 | 33 | 50 | 10 | 58 | | |
| Wood | 20 | 21 | 18 | | | | |
| Coal | 29 | 29 | 41 | 4 | | | |
| Glass | 5 | 6 | 4 | | | | |
| Felt | | | 14 | | | | |
| Fodder Transport | 149 | 140 | 179 | 158 | 208 | 254 | 300 |
| Exports | 436 | 455 | 339 | | | | |
| Housing interest | 2 | 7 | 6 | 18 | 68 | | |
| News papers | | | 4 | 15 | 1 | | |
| Price differential for clean water | 13 | 27 | 21 | 36 | 28 | | |
| Film purchases | 20 | 19 | 17 | 12 | 15 | | |
| Rents | 87 | 88 | 85 | 36 | | | |
| Forestation expenditure | | | | | 18 | | |
| Veterinary Services | 86 | 87 | 80 | 124 | 202 | 100 | |
| Meal subsidies | 50 | 50 | 50 | 262 | 132 | | |
| Medicines | 60 | 79 | 73 | 117 | 373 | | 1685 |
| Other | 135 | 158 | 214 | 4 | 14 | | 55 |

Source: IMF

9.6: Subsidies as a Percentage of Total Subsidies

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------|
| TOTAL | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| of which ... | | | | | | | |
| Energy | 6.6 | 8.0 | 9.5 | 22.5 | 3.6 | 0.3 | |
| Children Clothing | 6.2 | 6.2 | 6.2 | 5.9 | | | |
| Milk | 1.9 | 2.3 | 2.1 | 2.4 | 0.1 | | |
| Agricultural Incentives | 10.2 | 8.6 | 6.5 | 1.8 | | | |
| Urban Transport | 1.9 | 1.4 | 1.8 | 0.8 | 8.7 | 28.2 | 28.5 |
| Breed | | 0.5 | 0.5 | | | | |
| Meat | 2.0 | 2.0 | 2.9 | 0.5 | 3.5 | | |
| Wood | 1.3 | 1.2 | 1.0 | | | | |
| Coal | 1.9 | 1.8 | 2.3 | 0.2 | | | |
| Fodder Transport | 9.6 | 8.4 | 10.3 | 8.5 | 12.6 | 6.6 | 8.6 |
| Exports | 28.0 | 27.3 | 19.4 | | | | |
| Housing interest | 0.1 | 0.4 | 0.3 | 1.0 | 4.1 | | |
| Price differential for clean water | 0.8 | 1.6 | 1.2 | 1.9 | 1.7 | | |
| Rents | 5.6 | 5.3 | 4.8 | 2.0 | | | |
| Veterinary Services | 5.6 | 5.2 | 4.6 | 6.7 | 12.3 | 2.6 | |
| Meal subsidies | 3.2 | 3.0 | 2.9 | 14.1 | 8.0 | | |
| Medicines | 3.9 | 4.7 | 4.2 | 6.3 | 22.6 | | 48.1 |
| SUB-TOTAL | 88.8 | 88.1 | 80.4 | 74.5 | 77.3 | 37.5 | 85.2 |

9.7: Subsidies as a Percentage of GDP
(percentage)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|------------------------------------|------|------|------|------|------|------|---------------------|
| TOTAL | 15.1 | 15.5 | 16.7 | 9.8 | 3.8 | 2.1 | 1.3 |
| of which ... | | | | | | | |
| Energy | 1.0 | 1.2 | 1.6 | 2.2 | 0.1 | 0.0 | |
| Children Clothing | 0.9 | 1.0 | 1.0 | 0.6 | | | |
| Milk | 0.3 | 0.4 | 0.3 | 0.2 | 0.0 | | |
| Agricultural Incentives | 1.5 | 1.3 | 1.1 | 0.2 | | | |
| Urban Transport | 0.3 | 0.2 | 0.3 | 0.1 | 0.3 | 0.6 | 0.4 |
| Bread | | 0.1 | 0.1 | | | | |
| Meat | 0.3 | 0.3 | 0.5 | 0.1 | 0.1 | | |
| Wood | 0.2 | 0.2 | 0.2 | | | | |
| Coal | 0.3 | 0.3 | 0.4 | 0.0 | | | |
| Fodder Transport | 1.4 | 1.3 | 1.7 | 0.8 | 0.5 | 0.1 | 0.1 |
| Exports | 4.2 | 4.2 | 3.2 | | | | |
| Housing interest | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | | |
| Price differential for clean water | 0.1 | 0.3 | 0.2 | 0.2 | 0.1 | | |
| Rents | 0.8 | 0.8 | 0.8 | 0.2 | | | |
| Veterinary Services | 0.8 | 0.8 | 0.8 | 0.7 | 0.5 | 0.1 | |
| Meal subsidies | 0.5 | 0.5 | 0.5 | 1.4 | 0.3 | | |
| Medicines | 0.6 | 0.7 | 0.7 | 0.6 | 0.9 | | 0.6 |
| SUB-TOTAL | 13.4 | 13.7 | 13.4 | 7.3 | 3.0 | 0.8 | 1.1 |

9.8: Transfers

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Budget Est. |
|--------------------------------------|-------|-------|-------|-------|-------|-------|---------------------|
| Million Tugrik | | | | | | | |
| Total Transfers | 822 | 809 | 865 | 3634 | 3100 | 13773 | 16979 |
| of which ... | | | | | | | |
| Social security benefits | 723 | 730 | 793 | 2167 | 2393 | | |
| Social safety net fund | | | | 50 | 7 | | |
| Student allowances | 77 | 73 | 72 | 159 | 241 | | |
| Small enterprises and employment | | | | 147 | | | |
| Children's clothing fund | | | | | 126 | | |
| Doubling of deposits | | | | 720 | | | |
| Gasoline rebate | 22 | 6 | | 393 | | | |
| Percentage of Total Transfers (%) | | | | | | | |
| Total Transfers | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| of which ... | | | | | | | |
| Social security benefits | 87.9 | 90.2 | 91.7 | 59.6 | 77.2 | | |
| Social safety net fund | | | | 1.4 | 0.2 | | |
| Student allowances | 9.3 | 9.1 | 8.4 | 4.4 | 7.8 | | |
| Small enterprises and employment | | | | 4.0 | | | |
| Children's clothing fund | | | | | 4.0 | | |
| Doubling of deposits | | | | 19.8 | | | |
| Gasoline rebate | 2.7 | 0.7 | | 10.8 | | | |
| Total Transfers as Percentage of GDP | 8.0 | 7.5 | 8.3 | 19.2 | 7.2 | 7.5 | 6.5 |

9.9: Retirement Benefits

| | 1992 | | 1993 | | 1994 | |
|----------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|
| | TOTAL (million Tugrik) | BENEFICIARIES (Thousand) | TOTAL (million Tugrik) | BENEFICIARIES (Thousand) | TOTAL (million Tugrik) | BENEFICIARIES (Thousand) |
| TOTAL/AVERAGE | 1742 | 232 | 5448 | 235 | 1929 | 1936 |
| Standard Provision | 835 | 109 | 2609 | 112 | 1936 | 1936 |
| Liberal Pensions | 710 | 96 | 2358 | 97 | 2021 | 2021 |
| Military | 87 | 8 | 226 | 7 | 2651 | 2651 |
| Working Underground | 18 | 1 | 52 | 1 | 3618 | 3618 |
| Hazardous | 35 | 3 | 108 | 3 | 2654 | 2654 |
| Arduous | 94 | 9 | 269 | 10 | 2357 | 2357 |
| Art | 2 | 0 | 8 | 0 | 2250 | 2250 |
| Mothers of 4 or more | 552 | 74 | 1689 | 76 | 1864 | 1864 |
| Blind, deaf | 2 | 0 | 6 | 0 | 2375 | 2375 |
| Reduced Pensions | 117 | 28 | 481 | 26 | 1549 | 1549 |

Source: State Statistical Office, Ministry of Labor and Population and Mission estimates.

10.1: Total Fixed Investment

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|
| TOTAL FIXED INVESTMENT | 4629 | 4759 | 4538 | 4530 | 4804 | 3381 | 4027 | 7326 | .. |
| By technological composition: | | | | | | | | | |
| Building and installation work | 2740 | 2627 | 2361 | 2492 | 2640 | 2239 | 2648 | 5226 | .. |
| Machines, equipment, tools and Stock | 1409 | 1525 | 1523 | 1359 | 1528 | 821 | 1079 | 1700 | .. |
| Other | 484 | 610 | 668 | 687 | 639 | 324 | 307 | 400 | .. |
| By productive spheres: | | | | | | | | | |
| Productive | 3053 | 3272 | 2880 | 2984 | 3094 | 1867 | 2564 | 4400 | .. |
| Non-productive | 1576 | 1487 | 1658 | 1546 | 1710 | 1515 | 1463 | 2926 | .. |

Source: State Statistical Office

10.2: Total Fixed Investment by Sector
(at Current Prices in Million Tugrik)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-----------------------------------|------|------|------|------|------|------|------|------|------|
| TOTAL FIXED INVESTMENT | 4629 | 4759 | 4538 | 4530 | 4804 | 3381 | 4027 | 7326 | .. |
| Material productive sphere | 3053 | 3272 | 2880 | 2984 | 3094 | 1867 | 2564 | 4400 | .. |
| Industry | 1583 | 1869 | 1398 | 1247 | 1406 | 922 | 1741 | 2980 | .. |
| Agriculture | 671 | 616 | 601 | 688 | 732 | 352 | 287 | 484 | .. |
| Construction | 358 | 138 | 238 | 318 | 214 | 152 | 32 | 57 | .. |
| Transport | 293 | 445 | 462 | 552 | 516 | 327 | 335 | 572 | .. |
| Communication | 89 | 102 | 59 | 52 | 65 | 24 | 58 | 101 | .. |
| Trade, and Procurement | 59 | 101 | 122 | 128 | 162 | 90 | 111 | 206 | .. |
| Non-productive sphere | 1576 | 1487 | 1658 | 1546 | 1710 | 1515 | 1463 | 2926 | .. |
| Housing and domestic service | 903 | 813 | 985 | 980 | 1125 | 1045 | 739 | 1463 | .. |
| Education, culture, art, science | 251 | 210 | 241 | 221 | 274 | 251 | 264 | 527 | .. |
| Public health, and Culture | 102 | 137 | 141 | 108 | 142 | 131 | 329 | 650 | .. |
| Other | 320 | 327 | 291 | 236 | 169 | 88 | 132 | 286 | .. |

Source: State Statistical Office

10.3: Fixed Investment in Industry by Branches

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------|------|------|------|------|------|------|------|------|------|
| TOTAL FIXED INDUSTRY | 1583 | 1869 | 1398 | 1247 | 1406 | 922 | 1741 | 2980 | .. |
| Electric and thermal energy | 589 | 588 | 392 | 169 | 382 | 329 | 965 | 1574 | .. |
| Fuel industry | 105 | 213 | 189 | 196 | 110 | 153 | 324 | 536 | .. |
| Engineering and metal-working | 29 | 25 | 26 | 38 | 33 | 52 | 60 | 101 | .. |
| Non-ferrous metals | 116 | 143 | 106 | 115 | 236 | 67 | 73 | 227 | .. |
| Building materials | 284 | 262 | 213 | 227 | 264 | 145 | 84 | 143 | .. |
| Wood processing industry | 58 | 110 | 121 | 42 | 43 | 4 | 9 | 15 | .. |
| Textiles | 24 | 70 | 98 | 190 | 112 | 20 | 71 | 119 | .. |
| Clothing | 1 | 3 | 8 | 18 | 15 | 14 | 79 | 134 | .. |
| Leather, fur and shoe | 44 | 56 | 12 | 46 | 10 | 6 | 10 | 9 | .. |
| Printing | 2 | 4 | 2 | 3 | 10 | 1 | 4 | .. | .. |
| Glass, and faience | .. | 0 | 0 | 1 | 1 | 1 | 1 | 1 | .. |
| Food | 110 | 118 | 67 | 101 | 136 | 81 | 48 | 83 | .. |
| Other | 55 | 21 | 16 | 4 | 4 | 4 | 11 | 32 | .. |
| Chemical | 168 | 258 | 151 | 98 | 49 | 47 | 4 | 6 | .. |

Source: State Statistical Bureau

11.1: Retail Prices
(Tugriks per kilogram)

| | 1991 | | 1992 | | 1993 | Market Prices |
|------------------------|-------|--------|--------|----------|-------|---------------|
| | Jan 1 | Jan 15 | Feb 26 | Sept. 28 | March | March 1993 |
| Mutton: Quality I | 7.5 | 15.0 | 34.0 | 59.0 | 126.0 | 130-150 |
| Beef: Quality I | 6.0 | 12.0 | 30.0 | 59.0 | 126.0 | 120-130 |
| Horse meat: Quality II | 3.9 | 7.8 | 24.0 | 51.0 | 106.0 | 100-110 |
| Flour: Extra Quality | 2.1 | 4.2 | 23.0 | 35.0 /2 | 50.0 | 60.0 |
| Bread: In Ulaanbaatar | 1.4 | 2.8 | 14.4 | 23.0 | 39.0 | 39.0 |
| Sugar | 4.0 | 8.0 | 20.0 | /3 | /3 | 135-145 |
| Rice | 2.2 | 4.4 | 18.0 | /3 | /3 | 115-145 |
| Vegetable oil (liter) | 9.0 | 18.0 | 66.0 | /3 | /3 | 450-800 |
| Tea bricks | 5.0 | 10.0 | 39.0 | /3 | /3 | 450-600 |
| Tobacco | 19.5 | 20.0 | 110.0 | /3 | /3 | 500-650 |
| Electricity (kwh) | 0.25 | 0.50 | 0.50 | 2.00 | 2.00 | .. |

Source: Ministry of Trade and Industry, Price department

1/ Includes prices of goods that were freed from government control.

2/ Ulaanbaatar, January 1993

3/ Sold only at market prices. Government supply stopped owing to foreign exchange shortages.

12.1: Average Monthly Wages
(Tugrik, in Current Prices)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|------|------|------|------|------|------|------|------|------|
| Average monthly wages and salaries | 524 | 526 | 529 | 531 | 539 | 557 | 1025 | 1449 | .. |
| Material productive sphere | 544 | 547 | 551 | 560 | 568 | 587 | 974 | 1449 | .. |
| Industry | 584 | 586 | 586 | 593 | 618 | 622 | 1424 | 1449 | .. |
| Agriculture | 423 | 425 | 429 | 464 | 449 | 466 | 563 | 841 | .. |
| Construction | 579 | 586 | 607 | 585 | 596 | 602 | 1110 | 1755 | .. |
| Transport | 687 | 689 | 687 | 662 | 653 | 666 | 1255 | 2071 | .. |
| Communication | 473 | 474 | 469 | 485 | 490 | 477 | 1146 | 1568 | .. |
| Trade,procurement,material supply | 446 | 444 | 449 | 475 | 485 | 533 | 1143 | 1692 | .. |
| Non-productive sphere | 483 | 483 | 481 | 483 | 491 | 507 | 1127 | 1635 | .. |
| Housing and domestic services | 461 | 466 | 461 | 465 | 475 | 471 | 1141 | 1656 | .. |
| Science | 564 | 566 | 555 | 566 | 591 | 667 | 1411 | 1701 | .. |
| Public health, and insurance | 420 | 412 | 416 | 421 | 425 | 434 | 1023 | .. | .. |
| Culture,education,art | 473 | 479 | 481 | 473 | 478 | 498 | 1087 | .. | .. |

Source: State Statistical Office

13.1: Output of Major Agricultural Products
(thousand tons)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Meat, slaughter weight | 225.9 | 240.3 | 235.3 | 225.3 | 239.6 | 248.9 | 281.2 | 251.2 | 256.4 |
| Beef | 68.1 | 75.3 | 72.6 | 73.3 | 72.8 | 66.2 | 83.8 | 75.7 | 77.5 |
| Mutton and goat meat | 116.2 | 122.8 | 120.8 | 112.4 | 121.9 | 132.3 | 135.9 | 116.3 | 122.3 |
| Pork | 2.2 | 2.4 | 3.0 | 4.0 | 5.5 | 7.9 | 3.8 | 1.8 | 1.5 |
| Sheep's wool | 18.9 | 18.9 | 18.0 | 18.7 | 19.4 | 21.1 | 21.5 | 21.0 | 20.8 |
| Milk | 269.4 | 295.9 | 299.2 | 300.3 | 319.3 | 315.7 | 311.3 | 308.1 | 283.4 |
| Butter | 4.4 | 4.6 | 4.7 | 4.6 | 4.8 | 4.4 | 3.1 | 1.3 | .. |
| Eggs, mln pieces | 25.9 | 27.2 | 28.7 | 31.1 | 35.8 | 38.0 | 25.5 | 18.6 | 15.8 |
| Cereals | 886.0 | 869.4 | 689.3 | 814.3 | 839.1 | 718.3 | 595.0 | 493.9 | 480.0 |
| Wheat | 688.5 | 663.7 | 543.3 | 672.2 | 686.9 | 596.2 | 538.2 | 453.2 | .. |
| Potatoes | 113.9 | 132.8 | 147.6 | 103.2 | 155.5 | 131.1 | 96.5 | 78.5 | 60.0 |
| Vegetables | 41.2 | 46.4 | 48.0 | 56.3 | 59.5 | 41.7 | 22.7 | 16.4 | 11.0 |

Source: State Statistical Office

13.2: Livestock
(000 heads)

| | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Total | 23676 | 26205 | 22702 | 23001 | 22575 | 23771 | 22486 | 22644 | 22741 | 23122 | 24675 | 25857 | 25528 | 25754 | 25175 |
| Camel | 481 | 643 | 844 | 859 | 634 | 592 | 559 | 551 | 547 | 553 | 558 | 538 | 476 | 415 | 368 |
| Horse | 1567 | 2358 | 2317 | 2503 | 2318 | 1985 | 1971 | 2018 | 2047 | 2103 | 2200 | 2262 | 2259 | 2200 | 2190 |
| Cattle | 1887 | 2723 | 1988 | 1906 | 2108 | 2397 | 2408 | 2480 | 2526 | 2541 | 2693 | 2849 | 2822 | 2879 | 2731 |
| Sheep | 15660 | 15384 | 12575 | 12102 | 13312 | 14231 | 13249 | 13194 | 13234 | 13451 | 14265 | 15083 | 14721 | 14657 | 13779 |
| Goat | 4081 | 5096 | 4979 | 5631 | 4204 | 4567 | 4299 | 4401 | 4388 | 4474 | 4959 | 5126 | 5250 | 5603 | 6107 |
| PERCENTAGE GROWTH RATES | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | |
| Camel | | | | | | | | -1.5% | -0.7% | 1.2% | 1.0% | -3.7% | -11.4% | -12.8% | -11.4% |
| Horse | | | | | | | | 2.4% | 1.4% | 2.7% | 4.6% | 2.8% | -0.1% | -2.6% | -0.5% |
| Cattle | | | | | | | | 3.0% | 1.9% | 0.6% | 6.0% | 5.8% | -0.9% | 2.0% | -5.1% |
| Sheep | | | | | | | | -0.4% | 0.3% | 1.6% | 6.1% | 5.7% | -2.4% | -0.4% | -6.0% |
| Goat | | | | | | | | 2.4% | -0.3% | 2.0% | 10.8% | 3.4% | 2.4% | 6.7% | 9.0% |

Source: State Statistical Office

13.3: Livestock by Aimag
(000 heads)

| | 1991 | 1992 | 1993 |
|--------------|-------|-------|-------|
| TOTAL | | | |
| Total | 25528 | 25754 | 25175 |
| Arhangai | 1504 | 1496 | 1494 |
| BayanOlgii | 1160 | 1034 | 1005 |
| Bayanhongor | 1675 | 1762 | 1714 |
| Bulgan | 1021 | 1066 | 1037 |
| GovAltai | 1697 | 1775 | 1767 |
| Dornogov | 891 | 871 | 811 |
| Dornod | 889 | 802 | 714 |
| Dundgov | 1572 | 1591 | 1484 |
| Zavhan | 2080 | 2085 | 2005 |
| Ovorhangai | 2022 | 2046 | 2106 |
| Omnogov | 928 | 900 | 909 |
| Suhbaatar | 1036 | 1099 | 1134 |
| Selenge | 500 | 482 | 457 |
| Tov | 1653 | 1688 | 1621 |
| Uvs | 1585 | 1597 | 1628 |
| Hovd | 1637 | 1689 | 1823 |
| Hovsgol | 1788 | 1748 | 1679 |
| Hentii | 1380 | 1353 | 1183 |

| | 1991 | 1992 | 1993 |
|--------------|------|------|------|
| CAMEL | | | |
| Total | 476 | 415 | 368 |
| Arhangai | 2 | 1 | 1 |
| BayanOlgii | 9 | 8 | 7 |
| Bayanhongor | 42 | 38 | 36 |
| Bulgan | 4 | 3 | 2 |
| GovAltai | 48 | 43 | 39 |
| Dornogov | 53 | 47 | 36 |
| Dornod | 12 | 10 | 9 |
| Dundgov | 48 | 41 | 31 |
| Zavhan | 13 | 12 | 11 |
| Ovorhangai | 28 | 22 | 21 |
| Omnogov | 116 | 102 | 91 |
| Suhbaatar | 14 | 13 | 13 |
| Selenge | 0 | 0 | 0 |
| Tov | 7 | 6 | 5 |
| Uvs | 35 | 29 | 26 |
| Hovd | 32 | 28 | 27 |
| Hovsgol | 6 | 6 | 5 |
| Hentii | 9 | 8 | 7 |

Source: State Statistical Office

13.3: Livestock by Aimag
(000 heads)

| | 1991 | 1992 | 1993 |
|---------------|------|------|------|
| HORSES | | | |
| Total | 2259 | 2200 | 2190 |
| Arhangai | 192 | 184 | 189 |
| BayanOlgii | 74 | 66 | 62 |
| Bayanhongor | 104 | 104 | 100 |
| Bulgan | 125 | 129 | 132 |
| GovAltai | 85 | 81 | 80 |
| Dornogov | 78 | 78 | 77 |
| Dornod | 93 | 92 | 93 |
| Dundgov | 155 | 148 | 132 |
| Zavhan | 152 | 150 | 144 |
| Ovorhangai | 196 | 181 | 191 |
| Omnogov | 63 | 60 | 59 |
| Suhbaatar | 118 | 121 | 126 |
| Selenge | 34 | 35 | 38 |
| Tov | 210 | 205 | 207 |
| Uvs | 129 | 116 | 107 |
| Hovd | 99 | 94 | 95 |
| Hovsgol | 171 | 170 | 172 |
| Hentii | 139 | 138 | 136 |

| | 1991 | 1992 | 1993 |
|---------------|------|------|------|
| CATTLE | | | |
| Total | 2822 | 2879 | 2731 |
| Arhangai | 290 | 283 | 284 |
| BayanOlgii | 96 | 86 | 82 |
| Bayanhongor | 131 | 133 | 125 |
| Bulgan | 177 | 180 | 173 |
| GovAltai | 79 | 76 | 68 |
| Dornogov | 73 | 74 | 70 |
| Dornod | 124 | 123 | 118 |
| Dundgov | 97 | 95 | 84 |
| Zavhan | 196 | 194 | 190 |
| Ovorhangai | 198 | 198 | 206 |
| Omnogov | 25 | 24 | 21 |
| Suhbaatar | 135 | 144 | 152 |
| Selenge | 99 | 97 | 86 |
| Tov | 200 | 198 | 186 |
| Uvs | 154 | 148 | 147 |
| Hovd | 131 | 131 | 138 |
| Hovsgol | 328 | 332 | 328 |
| Hentii | 188 | 187 | 167 |

13.3: Livestock by Aimag
(000 heads)

| | 1991 | 1992 | 1993 |
|--------------|-------|-------|-------|
| SHEEP | | | |
| Total | 14721 | 14657 | 13779 |
| Arhangai | 823 | 815 | 785 |
| BayanOlgii | 704 | 605 | 559 |
| Bayanhongor | 798 | 829 | 740 |
| Bulgan | 608 | 634 | 596 |
| GovAltai | 958 | 994 | 947 |
| Dornogov | 487 | 468 | 430 |
| Dornod | 618 | 530 | 443 |
| Dundgov | 842 | 860 | 786 |
| Zavhan | 1367 | 1359 | 1257 |
| Ovorhangai | 1172 | 1191 | 1171 |
| Omogov | 297 | 287 | 279 |
| Suhbaatar | 625 | 657 | 656 |
| Selenge | 334 | 312 | 290 |
| Tov | 1062 | 1087 | 1012 |
| Uvs | 969 | 992 | 995 |
| Hovd | 879 | 906 | 958 |
| Hovsgol | 1007 | 942 | 850 |
| Kentii | 866 | 825 | 668 |
| GOAT | | | |
| Total | 5250 | 5603 | 6107 |
| Arhangai | 197 | 213 | 235 |
| BayanOlgii | 277 | 269 | 295 |
| Bayanhongor | 600 | 659 | 713 |
| Bulgan | 108 | 120 | 134 |
| GovAltai | 528 | 580 | 633 |
| Dornogov | 201 | 204 | 198 |
| Dornod | 43 | 47 | 51 |
| Dundgov | 430 | 447 | 451 |
| Zavhan | 353 | 371 | 403 |
| Ovorhangai | 429 | 455 | 517 |
| Omogov | 428 | 427 | 459 |
| Suhbaatar | 144 | 164 | 187 |
| Selenge | 33 | 38 | 43 |
| Tov | 175 | 192 | 211 |
| Uvs | 298 | 312 | 353 |
| Hovd | 496 | 529 | 605 |
| Hovsgol | 276 | 298 | 324 |
| Kentii | 178 | 194 | 205 |

13.4: Agricultural Machinery
(thousands)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------|------|------|------|------|------|------|------|------|------|
| Tractors | 11.1 | 11.5 | 11.6 | 11.8 | 11.5 | 11.2 | 9.1 | 9.0 | .. |
| of which in working condition | 7.9 | 28.0 | .. | 7.9 | 7.7 | 7.5 | 7.0 | 6.9 | .. |
| Tractor ploughs | 2.1 | 2.1 | 2.1 | 2.3 | 2.2 | 2.1 | 1.7 | 1.6 | .. |
| Cultivators | 5.6 | 5.7 | 5.0 | 5.4 | 4.9 | 4.5 | 3.6 | 3.4 | .. |
| Tractor drills | 6.9 | 7.0 | 6.9 | 7.2 | 6.7 | 6.3 | 5.5 | 5.3 | .. |
| Grain harvester | 2.7 | 2.9 | 2.7 | 2.7 | 2.5 | 2.3 | 2.2 | 2.1 | .. |

Source: State Statistical Office

13.5: Breeding Stock
(thousand heads)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TOTAL | | | | | | | | | |
| Total | 11018 | 10832 | 11035 | 11198 | 11420 | 12043 | 11640 | 11463 | 11080 |
| State Farms | 716 | 697 | 705 | 695 | 686 | 658 | 567 | 4018 | 1338 |
| Agricultural Cooperatives | 8131 | 7842 | 7899 | 7842 | 7678 | 7478 | 4961 | 7445 | 9742 |
| Private Farms | 1946 | 2052 | 2166 | 2346 | 2663 | 3324 | 5573 | | |
| FEMALE CAMELS | | | | | | | | | |
| Total | 154 | 151 | 152 | 152 | 151 | 141 | 127 | 112 | 99 |
| State Farms | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| Agricultural Cooperatives | 133 | 130 | 130 | 130 | 128 | 116 | 82 | 47 | 10 |
| Private Farms | 19 | 19 | 19 | 20 | 21 | 23 | 43 | 65 | 89 |
| MARES | | | | | | | | | |
| Total | 510 | 504 | 518 | 535 | 555 | 564 | 576 | 566 | 580 |
| State Farms | 21 | 20 | 21 | 21 | 20 | 19 | 14 | | |
| Agricultural Cooperatives | 313 | 295 | 293 | 288 | 282 | 258 | 176 | 131 | 45 |
| Private Farms | 164 | 176 | 190 | 211 | 235 | 267 | 365 | 435 | 535 |
| COWS | | | | | | | | | |
| Total | 1007 | 1019 | 1023 | 1044 | 1084 | 1127 | 1064 | 1032 | 1043 |
| State Farms | 99 | 101 | 99 | 97 | 97 | 95 | 82 | | |
| Agricultural Cooperatives | 507 | 496 | 485 | 483 | 483 | 469 | 310 | 275 | 109 |
| Private Farms | 376 | 396 | 411 | 430 | 466 | 518 | 634 | 757 | 934 |
| EMES | | | | | | | | | |
| Total | 7147 | 7010 | 7147 | 7244 | 7385 | 7786 | 7407 | 7099 | 6477 |
| State Farms | 562 | 543 | 552 | 545 | 537 | 515 | 446 | | |
| Agricultural Cooperatives | 5500 | 5330 | 5394 | 5371 | 5287 | 5173 | 3424 | 2840 | 1016 |
| Private Farms | 919 | 957 | 1006 | 1094 | 1264 | 1648 | 3132 | 4259 | 5461 |
| FEMALE GOATS | | | | | | | | | |
| Total | 2201 | 2148 | 2196 | 2223 | 2246 | 2426 | 2466 | 2654 | 2880 |
| State Farms | 33 | 32 | 31 | 31 | 30 | 27 | 24 | | |
| Agricultural Cooperatives | 1679 | 1591 | 1597 | 1570 | 1498 | 1462 | 970 | 724 | 158 |
| Private Farms | 468 | 505 | 541 | 590 | 677 | 868 | 1399 | 1930 | 2722 |

Source: State Statistical Office

13.6: Rearing of Younglings
(thousand heads)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|------|------|------|------|-------|-------|-------|------|------|
| NUMBER OF OFFSPRINGS | | | | | | | | | |
| Total | 9353 | 9655 | 9407 | 9475 | 10061 | 10079 | 10252 | 9320 | 8899 |
| Camels | 66 | 63 | 64 | 66 | 69 | 62 | 56 | 48 | 40 |
| Foals | 296 | 320 | 304 | 331 | 359 | 349 | 355 | 329 | 319 |
| Claves | 667 | 705 | 721 | 711 | 762 | 776 | 785 | 749 | 708 |
| Lambs | 6488 | 6618 | 6453 | 6577 | 6844 | 6918 | 6939 | 6137 | 5670 |
| Kids | 1836 | 1950 | 1865 | 1790 | 2027 | 1974 | 2117 | 2057 | 2162 |
| SURVIVALS | | | | | | | | | |
| Total | 8349 | 8881 | 8555 | 8481 | 9673 | 9519 | 9612 | 8736 | 7762 |
| Camels | 60 | 58 | 59 | 62 | 65 | 58 | 53 | 45 | 36 |
| Foals | 288 | 312 | 296 | 323 | 352 | 338 | 344 | 315 | 290 |
| Claves | 642 | 680 | 693 | 687 | 744 | 755 | 763 | 725 | 669 |
| Lambs | 5747 | 6054 | 5811 | 5808 | 6570 | 6522 | 6469 | 5727 | 4907 |
| Kids | 1613 | 1778 | 1696 | 1601 | 1942 | 1846 | 1984 | 1925 | 1860 |
| PERCENTAGE OF SURVIVALS (%) | | | | | | | | | |
| Total | 89.3 | 92.0 | 90.9 | 89.5 | 96.2 | 94.4 | 93.8 | 93.7 | 87.2 |
| Camels | 90.5 | 91.9 | 92.1 | 94.1 | 94.6 | 93.7 | 94.1 | 93.7 | 90.0 |
| Foals | 97.3 | 97.5 | 97.5 | 97.5 | 98.1 | 96.9 | 96.8 | 95.6 | 90.9 |
| Claves | 96.2 | 96.4 | 96.2 | 96.6 | 97.7 | 97.3 | 97.1 | 96.8 | 94.5 |
| Lambs | 88.6 | 91.5 | 90.0 | 88.3 | 96.0 | 94.3 | 93.2 | 93.3 | 86.5 |
| Kids | 87.8 | 91.2 | 91.0 | 89.5 | 95.8 | 93.5 | 93.7 | 93.6 | 86.0 |

Source: State Statistical Office

13.7: Rate of Survival of Younglings
(per thousand female breeding stock)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------------------------|------|------|------|------|------|------|------|------|------|
| TOTAL | | | | | | | | | |
| Total | 314 | 331 | 328 | 324 | 358 | 339 | 332 | 313 | 287 |
| Young Camels | 39 | 37 | 39 | 41 | 43 | 38 | 38 | 35 | 32 |
| Foals | 56 | 61 | 59 | 62 | 66 | 61 | 61 | 55 | 51 |
| Calves | 65 | 67 | 68 | 67 | 71 | 70 | 68 | 68 | 65 |
| Lembs | 81 | 85 | 83 | 81 | 91 | 88 | 83 | 77 | 69 |
| Kids | 73 | 81 | 79 | 73 | 87 | 82 | 82 | 78 | 70 |
| STATE FARMS | | | | | | | | | |
| Total | 284 | 292 | 297 | 301 | 323 | 313 | 251 | .. | .. |
| Young Camels | 33 | 34 | 39 | 40 | 39 | 44 | 22 | .. | .. |
| Foals | 55 | 54 | 52 | 54 | 57 | 57 | 46 | .. | .. |
| Calves | 52 | 55 | 57 | 56 | 65 | 60 | 51 | .. | .. |
| Lembs | 68 | 72 | 73 | 73 | 80 | 76 | 69 | .. | .. |
| Kids | 76 | 77 | 76 | 78 | 82 | 76 | 63 | .. | .. |
| AGRICULTURAL COOPERATIVES | | | | | | | | | |
| Total | 293 | 313 | 308 | 303 | 343 | 319 | 299 | 233 | 153 |
| Young Camels | 38 | 37 | 39 | 40 | 43 | 38 | 35 | 28 | 18 |
| Foals | 49 | 54 | 51 | 56 | 59 | 52 | 48 | 32 | 23 |
| Calves | 54 | 57 | 58 | 56 | 62 | 59 | 54 | 42 | 29 |
| Lembs | 82 | 86 | 83 | 81 | 92 | 89 | 82 | 66 | 44 |
| Kids | 70 | 79 | 77 | 70 | 87 | 81 | 80 | 65 | 39 |
| PRIVATE SECTOR | | | | | | | | | |
| Total | 364 | 374 | 368 | 368 | 384 | 376 | 395 | 383 | 348 |
| Young Camels | 41 | 40 | 42 | 43 | 43 | 40 | 51 | 49 | 42 |
| Foals | 71 | 76 | 72 | 74 | 76 | 73 | 76 | 68 | 60 |
| Calves | 85 | 85 | 84 | 83 | 84 | 84 | 85 | 86 | 78 |
| Lembs | 85 | 87 | 86 | 87 | 92 | 92 | 96 | 93 | 86 |
| Kids | 82 | 86 | 84 | 81 | 89 | 87 | 87 | 87 | 82 |

Source: State Statistical Office

13.8: Pigs and Poultry Farms by Farm Categories

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TOTAL PIGS | 56.1 | 79.7 | 120.2 | 170.8 | 192.1 | 134.7 | 83.3 | 48.6 | 28.6 |
| State Farms and Fodder Supply Farms | 10.8 | 13.1 | 16.5 | 15.7 | 17.0 | 14.9 | 4.6 | .. | .. |
| State Organizations | 19.1 | 23.1 | 30.7 | 37.7 | 37.0 | 19.6 | 9.7 | 4.2 | .. |
| Agricultural Cooperatives | 7.0 | 8.6 | 11.4 | 13.1 | 13.7 | 10.5 | 3.7 | 3.6 | 3.8 |
| Private Farms | 19.2 | 34.9 | 61.6 | 104.3 | 124.4 | 89.7 | 65.3 | 40.8 | 24.8 |
| TOTAL POULTRY | 271.4 | 299.6 | 339.4 | 376.6 | 369.9 | 326.2 | 223.3 | 184.2 | 131.5 |
| State Farms and Fodder Supply Farms | 220.9 | 234.3 | 257.4 | 274.2 | 279.4 | 264.9 | 190.1 | .. | .. |
| State Organizations | 9.0 | 15.7 | 22.9 | 24.2 | 20.1 | 15.1 | 9.1 | 4.2 | .. |
| Agricultural Cooperatives | 34.9 | 40.9 | 49.1 | 66.6 | 55.9 | 33.5 | 6.7 | 159.7 | 112.7 |
| Private Farms | 6.6 | 8.7 | 10.0 | 11.6 | 14.5 | 12.7 | 17.4 | 20.3 | 18.8 |

Source: State Statistical Office

13.9: State Procurement of Livestock, Milk and Wool
(thousand tons)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|
| MEAT | | | | | | | | | |
| Cattle | 67.7 | 76.0 | 74.0 | 71.7 | 65.5 | 51.5 | 51.6 | 40.4 | .. |
| Sheep | 117.1 | 126.9 | 120.9 | 109.6 | 116.5 | 102.0 | 94.3 | 51.2 | .. |
| Goat | 22.1 | 25.6 | 25.6 | 17.0 | 17.4 | 21.8 | 20.9 | 11.2 | .. |
| Horses (Thousand heads) | 87.4 | 87.4 | 87.9 | 86.8 | 84.0 | 53.9 | 28.9 | 58.5 | .. |
| MILK (Million liters) | | | | | | | | | |
| | 126.6 | 137.5 | 142.7 | 144.5 | 151.7 | 144.4 | 104.7 | 58.5 | .. |
| WOOL | | | | | | | | | |
| Sheep | 18.8 | 18.8 | 18.1 | 18.7 | 19.5 | 20.0 | 18.7 | 12.7 | .. |
| Camel | 2.8 | 2.8 | 2.8 | 2.8 | 2.6 | 2.3 | 2.3 | 2.0 | .. |
| Goat | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | .. |
| Goat down | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.5 | 1.5 | 1.5 | .. |
| Cattle moult | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.2 | 0.7 | .. |
| Cattle hair | 1.0 | 1.0 | 1.1 | 0.9 | 0.9 | 0.9 | 0.8 | 0.5 | .. |

Source: State Statistical Office

13.10: Procurement of Raw Hides and Skins
(thousand pieces)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| HIDES | | | | | | | | | |
| Cattle | 468.6 | 495.9 | 493.4 | 502.4 | 472.0 | 371.2 | 364.6 | 303.7 | .. |
| Horses | 127.5 | 140.3 | 131.1 | 137.3 | 120.2 | 90.7 | 88.2 | 86.0 | .. |
| Camel | 39.2 | 39.3 | 41.3 | 32.5 | 33.4 | 21.4 | 23.0 | 17.5 | .. |
| SKINS | | | | | | | | | |
| Sheep | 4398.0 | 4636.2 | 4551.5 | 4237.6 | 4237.6 | 3058.8 | 2975.5 | 2641.6 | .. |
| Goat | 1231.0 | 1305.4 | 1286.5 | 1100.9 | 1069.7 | 930.4 | 935.8 | 721.5 | .. |
| Marmot | 763.4 | 1194.6 | 1200.5 | 1108.8 | 925.9 | 668.7 | 412.2 | 189.1 | .. |
| Squirrel | 23.8 | 22.5 | 22.1 | 17.7 | 10.7 | 8.1 | 0.2 | 0.3 | .. |
| Wolf | 3.7 | 4.1 | 4.0 | 4.3 | 4.5 | 3.3 | 1.3 | 0.4 | .. |

Source: State Statistical Office

13.11: Productivity of Livestock

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|------|
| AVERAGE LIVE WEIGHT OF LIVESTOCK SOLD TO THE STATE (kg) | | | | | | | | | |
| Cattle | 259.0 | 258.0 | 255.0 | 256.0 | 255.0 | 254.0 | 245.0 | 258.0 | .. |
| Sheep | 41.0 | 38.0 | 38.0 | 39.0 | 38.0 | 39.0 | 39.0 | 38.0 | .. |
| Goat | 32.0 | 31.0 | 31.0 | 31.0 | 31.0 | 34.0 | 33.0 | 31.0 | .. |
| AVERAGE WEIGHT OF WOOL (grams per head) | | | | | | | | | |
| Sheep | 1405.0 | 1421.0 | 1372.0 | 1411.0 | 1450.0 | 1479.0 | 1243.0 | 866.0 | .. |
| Camel | 4995.0 | 5073.0 | 5172.0 | 5150.0 | 4780.0 | 4354.0 | 4365.0 | 4200.0 | .. |
| Goat | 180.0 | 182.0 | 178.0 | 182.0 | 183.0 | 171.0 | 149.0 | 107.0 | .. |
| Goat down | 285.0 | 292.0 | 284.0 | 291.0 | 296.0 | 295.0 | 291.0 | 276.0 | .. |
| YIELD OF MILK PER COW (kg) | | | | | | | | | |
| | 351.0 | 365.0 | 358.0 | 364.0 | 361.0 | 338.0 | 323.0 | 310.5 | .. |

Source: State Statistical Office

13.12: Agricultural Land
(Thousand hectares)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| Agricultural Land | 124587 | 124533 | 124890 | 125234 | 125532 | 125656 | 126131 | 122381 | .. |
| Arable land | 1354 | 1307 | 1335 | 1366 | 1375 | 1371 | 1369 | 1217 | .. |
| of which Plough-land | 1240 | 1260 | 1283 | 1339 | 1347 | 1347 | 1285 | 1364 | .. |
| Natural meadows and pastures | 123233 | 123224 | 123554 | 123868 | 124157 | 124285 | 124761 | .. | .. |
| Sown Area | 790 | 804 | 800 | 828 | 838 | 788 | 708 | 656 | 584 |
| Cereals | 636 | 630 | 623 | 642 | 673 | 654 | 615 | 593 | 546 |
| Potatoes | 10 | 11 | 12 | 13 | 13 | 12 | 10 | 9 | 9 |
| Vegetables | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 3 |
| Fodder crops cultures | 140 | 159 | 161 | 170 | 148 | 118 | 80 | 53 | 26 |

Source: State Statistical Office

13.13: Yields of Crops
(100 kg (Centners) per hectare)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------|-------|-------|-------|-------|-------|-------|------|------|------|
| Cereals | 13.9 | 13.8 | 11.1 | 12.7 | 12.5 | 11.0 | 9.7 | 8.3 | 8.8 |
| Wheat | 14.3 | 14.2 | 11.6 | 13.7 | 13.0 | 11.2 | 10.1 | 8.6 | 9.0 |
| Barley | 13.9 | 14.5 | 10.2 | 9.9 | 10.9 | 10.1 | 8.1 | 6.7 | 5.7 |
| Oats | 12.0 | 10.7 | 8.1 | 8.8 | 10.3 | 10.4 | 3.5 | 4.3 | 7.5 |
| Potatoes | 110.1 | 119.0 | 118.8 | 78.5 | 123.2 | 107.7 | 96.6 | 90.0 | 67.7 |
| Fodder crops | 179.3 | 149.0 | 115.2 | 107.5 | 103.4 | 114.5 | 80.9 | 71.8 | 51.7 |

Source: State Statistical Office

13.14: Hay Harvest and Laying-in Fodder
(thousand tons)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| Gross hay harvest | 1280.6 | 1256.7 | 1235.4 | 1246.5 | 1166.3 | 866.4 | 885.5 | 668.8 | 689.7 |
| of which Private sector | 109.8 | 97.5 | 115.4 | 133.1 | 160.4 | 147.0 | 251.6 | 338.3 | 456.4 |
| Fodder | 1060.0 | 1091.8 | 1145.8 | 1035.7 | 1027.3 | 696.4 | 562.1 | 405.7 | 410.9 |
| Memo Items: | | | | | | | | | |
| State farms and fodder supply farms | 504.6 | 505.4 | 483.4 | 493.5 | 445.2 | 357.6 | 317.6 | .. | .. |
| Agricultural co-operatives etc. | 599.5 | 590.2 | 567.2 | 548.9 | 481.0 | 299.6 | 232.8 | .. | .. |
| Inter-agricultural & Enterprise Co-ops | 17.0 | 18.8 | 18.1 | 20.2 | 23.3 | 21.9 | 15.8 | .. | .. |
| State organizations | 49.7 | 44.8 | 51.3 | 50.8 | 56.4 | 40.3 | 67.6 | .. | .. |

Source: State Statistical Office

14.1: Output of Industry

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Electricity, mln. kWh | 2843.0 | 3170.0 | 3349.0 | 3544.0 | 3568.0 | 3348.0 | 3229.0 | 2902.5 | 2131.7 |
| Coal, thous. t | 6523.0 | 7065.0 | 7765.0 | 8606.0 | 8045.0 | 7157.0 | 7037.0 | 6013.9 | 5608.3 |
| Flour spar, thous. t | 786.8 | 592.4 | 543.7 | 522.7 | 578.2 | 455.9 | 755.2 | 622.0 | 536.8 |
| Copper, thous. t | .. | 169.9 | 169.8 | 180.6 | 352.8 | 354.1 | 257.4 | 300.2 | 334.3 |
| Bricks, mln pieces | 150.5 | 424.7 | 541.4 | 502.1 | 172.8 | 151.1 | 108.2 | 54.1 | 33.4 |
| Cement, thous. t | .. | .. | .. | .. | 512.6 | 440.8 | 226.8 | 132.5 | 82.3 |
| Lime, thous. t | 102.6 | 106.6 | 114.1 | 122.2 | 95.0 | 103.0 | 76.3 | 67.8 | 51.2 |
| Installed metal constructions, thous. m3 | 133.7 | 141.9 | 154.7 | 156.6 | 165.1 | 166.8 | 72.3 | 42.0 | 17.1 |
| Plywood, thous. m3 | 1.2 | 2.7 | 4.8 | 5.8 | 4.9 | 3.4 | 1.9 | 1.1 | 0.2 |
| Cardboard, t | 962.0 | 1203.8 | 1210.0 | 943.7 | 1026.6 | 819.4 | 978.0 | 124.5 | .. |
| Sawn wood, thous. m3 | 686.2 | 623.7 | 580.5 | 540.7 | 553.1 | 509.0 | 270.4 | 7.1 | 84.5 |
| Scoured wool, thous. t | 11.3 | 10.7 | 10.4 | 9.6 | 10.1 | 9.7 | 7.2 | .. | 3.5 |
| Carpet, thous. sq m | 1585.6 | 1680.6 | 1809.4 | 1813.8 | 2128.1 | 1971.2 | 1400.2 | 1037.0 | 1000.1 |
| Knitted goods, thous. pieces | 2824.7 | 3094.3 | 3163.8 | 3942.2 | 4110.5 | 4248.6 | 2808.7 | 1411.7 | 990.7 |
| Felt, thous. m | 623.9 | 636.2 | 630.4 | 631.1 | 849.7 | 745.1 | 583.2 | 494.8 | 241.4 |
| Felt boots, thous. pairs | 452.2 | 451.9 | 469.1 | 486.2 | 592.3 | 588.5 | 444.2 | 409.1 | 252.1 |
| Woolen fabrics thous. running m | 1432.5 | 1510.5 | 1549.8 | 1595.1 | 1978.2 | 1111.3 | 786.4 | 705.8 | 289.9 |
| Over coat, thous. pieces | 186.2 | 153.3 | 99.4 | 101.7 | 89.7 | 108.7 | 51.5 | 8.6 | 0.6 |
| Suits, thous. pairs | 163.9 | 141.5 | 168.6 | 152.0 | 182.6 | 201.8 | 30.2 | 11.5 | 2.7 |
| Hides large, thous. t | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 0.8 | 0.5 | 0.2 |
| Leather footwear 1000 pairs | 2883.4 | 3149.3 | 3517.3 | 3920.6 | 4140.0 | 4222.5 | 3994.1 | 2244.7 | 1030.8 |
| Leather coat, thous. pieces | 81.0 | 42.7 | 49.5 | 31.4 | 41.6 | 35.7 | 29.9 | 40.1 | 9.4 |
| Sheepskin coat, 1000 pieces | 135.2 | 149.3 | 161.2 | 181.6 | 180.2 | 138.1 | 111.5 | 99.4 | 86.6 |
| Meat, meat products, thous. t | 62.5 | 63.9 | 64.7 | 62.0 | 61.7 | 57.8 | 49.6 | 25.2 | 17.3 |
| Sausages, t | 4051.5 | 4462.1 | 4782.1 | 5284.7 | 5824.3 | 5522.4 | 5825.4 | 3360.0 | 1245.3 |
| Flour, thous. t | 175.7 | 185.9 | 193.7 | 196.4 | 199.7 | 189.8 | 174.4 | 181.9 | 138.8 |
| Bakery goods, thous. t | 65.4 | 68.4 | 68.7 | 69.9 | 66.7 | 63.3 | 60.6 | 60.9 | 46.0 |
| Confectionery, thous. t | 37.1 | 38.9 | 37.2 | 41.8 | 45.7 | 41.6 | 33.4 | 17.0 | 12.0 |
| Milk, dairy products, mln l | 45.2 | 52.8 | 55.6 | 59.0 | 62.0 | 59.6 | 50.6 | 27.7 | 13.0 |
| Mixed fodder, thous. t | 156.1 | 141.0 | 156.4 | 177.4 | 212.2 | 119.1 | 102.1 | 82.7 | 77.0 |
| Household soap, thous. t | 4.1 | 3.9 | 3.7 | 2.5 | 3.3 | 2.6 | 0.7 | 0.4 | 0.2 |
| Toilet soap, mln pieces | 9.3 | 8.2 | 5.4 | 6.8 | 10.3 | 10.2 | 5.3 | .. | .. |
| Publications million signatures, | 426.4 | 453.3 | 363.3 | 382.2 | 376.6 | 312.8 | 174.6 | 54.1 | 39.7 |

Source: State Statistical Office

15.1: Energy
(thousand kW)

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|
| Installed capacity | 758 | 843 | 877 | 890 | 936 | 936 | 936 | .. | .. |
| TOTAL PRODUCTION OF ELECTRICITY | 2996 | 3257 | 3419 | 3619 | 3726 | 3576 | 3313 | 3004 | .. |
| Gross generation | 2843 | 3170 | 3349 | 3544 | 3568 | 3348 | 3229 | 2903 | 2132 |
| Imports | 153 | 87 | 70 | 75 | 158 | 228 | 84 | 102 | .. |
| Exports | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL CONSUMPTION OF ELECTRICITY | 2996 | 3257 | 3419 | 3619 | 3726 | 3576 | 3313 | 3004 | .. |
| Industry and Construction | 1633 | 1799 | 1837 | 1871 | 1911 | 1803 | 1498 | 1413 | .. |
| Transport and Communication | 145 | 161 | 178 | 182 | 185 | 175 | 110 | 101 | .. |
| Agriculture | 85 | 91 | 102 | 103 | 123 | 116 | 75 | 45 | .. |
| Communal housing | 327 | 343 | 351 | 358 | 370 | 349 | 362 | 308 | .. |
| Losses in transmission & distribution | 174 | 181 | 248 | 278 | 280 | 323 | 340 | 285 | .. |
| Station use | 443 | 477 | 509 | 560 | 566 | 534 | 573 | 571 | .. |

Source: State Statistical Office

16.1: Transport Indicators by Mode

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| FREIGHT TURNOVER (Million Ton km) | | | | | | | | | |
| Total | 7905.1 | 8390.9 | 8292.3 | 8418.8 | 8068.9 | 6971.6 | 4380.9 | 3320.9 | 2805.2 |
| Railway | 5959.6 | 6333.4 | 6179.9 | 6241.1 | 5956.1 | 5087.8 | 3012.6 | 2756.4 | 2531 |
| Road | 1934.3 | 2046.1 | 2099.1 | 2162.2 | 2097.9 | 1870.9 | 1362.5 | 559.1 | 268.4 |
| Air | 6.5 | 7.1 | 8.1 | 10.6 | 9.9 | 8 | 4.1 | 5.4 | 5.8 |
| River | 4.7 | 4.3 | 5.2 | 4.9 | 5 | 4.9 | 1.7 | .. | .. |
| FREIGHT CARRIED (Million Tons) | | | | | | | | | |
| Total | 50.951 | 55.449 | 59.157 | 63.758 | 61.966 | 53.982 | 36.504 | 15.203 | 11.403 |
| Railway | 15 | 15.9 | 16.8 | 17.9 | 16.8 | 14.5 | 10.3 | 8.5 | 7.9 |
| Road | 35.9 | 39.5 | 42.3 | 45.8 | 45.1 | 39.4 | 26.2 | 6.7 | 3.5 |
| Air | 0.012 | 0.013 | 0.014 | 0.014 | 0.01 | 0.01 | 0.004 | 0.003 | 0.003 |
| River | 0.039 | 0.036 | 0.043 | 0.044 | 0.056 | 0.072 | 0 | 0 | 0 |
| PASSENGER TURNOVER (Million Passenger km) | | | | | | | | | |
| Total | 1418.5 | 1536.5 | 1692.8 | 1986.8 | 2102.9 | 2056.1 | 1958.1 | 1956.5 | 1572.7 |
| Railway | 435.8 | 467.1 | 486.5 | 531 | 578.6 | 570.1 | 596.3 | 629.5 | 582.5 |
| Road | 688.2 | 747.1 | 838.6 | 923.4 | 957 | 914.6 | 913.4 | 963 | 700.6 |
| Air | 294.5 | 322.3 | 367.7 | 532.4 | 567.3 | 571.4 | 448.4 | 364 | 289.6 |
| River | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| PASSENGERS CARRIED (Million) | | | | | | | | | |
| Total | 171.23 | 187.59 | 211.54 | 234.5 | 242.22 | 232.23 | 234.41 | 252.2 | 191.8 |
| Railway | 2.1 | 2.4 | 2.5 | 2.6 | 2.7 | 2.6 | 2.5 | 2.6 | 2.3 |
| Road | 168.5 | 184.5 | 208.3 | 231.1 | 238.7 | 228.8 | 231.3 | 249.3 | 189.3 |
| Air | 0.63 | 0.69 | 0.74 | 0.8 | 0.82 | 0.83 | 0.61 | 0.3 | 0.2 |
| River | .. | .. | .. | .. | .. | .. | .. | .. | .. |

Source: State Statistical Office

16.2: Railway Transport

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|
| FREIGHT CARRIED (Thousand Tons) | 15029 | 15929 | 16753 | 17850 | 16860 | 14517 | 10270 | 8518 | 7854 |
| Local | 7084 | 7902 | 9153 | 9958 | 9698 | 8576 | 7113 | 5892 | 5614 |
| International | 7946 | 8027 | 7600 | 7892 | 7162 | 5942 | 3157 | 2626 | 2240 |
| Exit | 2116 | 2144 | 2340 | 2829 | 2874 | 2753 | 1707 | 1374 | 992 |
| Entry | 4356 | 4081 | 3711 | 3709 | 3020 | 2210 | 1281 | 943 | 946 |
| Transit | 1474 | 1803 | 1549 | 1354 | 1268 | 978 | 169 | 309 | 302 |
| FREIGHT TURNOVER (Million ton km) | 5960 | 6333 | 6180 | 6241 | 5956 | 5088 | 3013 | 2763 | 2526 |
| Local | 1774 | 1927 | 2094 | 2116 | 2153 | 1944 | 1597 | 1349 | 1297 |
| International | 4186 | 4406 | 4086 | 4125 | 3804 | 3144 | 1416 | 1413 | 1229 |
| Exit | 1024 | 970 | 1121 | 1377 | 1399 | 1323 | 761 | 687 | 490 |
| Entry | 1526 | 1435 | 1244 | 1246 | 997 | 735 | 468 | 382 | 404 |
| Transit | 1636 | 2001 | 1721 | 1503 | 1408 | 1086 | 187 | 344 | 335 |

Source: State Statistical Office

16.3: Railway Transport: Length

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|----------------------------------|------|------|------|------|------|------|------|------|------|
| Total railway length, km | 1748 | 1748 | 1748 | 1815 | 1815 | 1815 | 1815 | 1815 | .. |
| Railway length per 1000 sq km | 1.1 | 1.1 | 1.1 | 1.2 | 1.0 | 1.2 | 1.2 | 1.2 | .. |
| Freight turnover, thous.tkm | 3409 | 3623 | 3535 | 3439 | 3282 | 2803 | 1660 | 1522 | .. |
| Passenger turnover, thou.pass.km | 249 | 267 | 278 | 293 | 314 | 314 | 329 | 351 | .. |

Source: State Statistical Office

16.4: Road Transport

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------|--------|------|--------|--------|--------|--------|--------|------|------|
| Improved avto road -total | 3613.4 | 3680 | 3729.6 | 3949.5 | 4249.7 | 4316.9 | 4367.9 | 3076 | .. |
| of which with hard cover | 920.6 | 966 | 1006.7 | 1093.5 | 1184.6 | 1243 | 1294 | 1303 | .. |

Source: State Statistical Office

16.5: Internal City Transport

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Passenger turnover, mln pass.km | 587.1 | 644.2 | 723.9 | 807.9 | 838.8 | 737.3 | 617.5 | 781.5 | .. |
| Carried passengers, mln passengers | 166 | 182.8 | 205.4 | 229 | 236.7 | 192.5 | 181.6 | 213.6 | .. |
| Taxi, mln paid km | 7.1 | 7.7 | 8.1 | 8.9 | 9.7 | 9.1 | 2.9 | .. | .. |

Source: State Statistical Office

16.6: Average Distance Carried by Various Modes

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Railway transport | 396.5 | 397.4 | 368.8 | 349.6 | 353.5 | 350.2 | 292.5 | 324.3 | 320.4 |
| Avto transport | 53.9 | 52.9 | 49.6 | 47.2 | 46.5 | 48.1 | 47 | 83.5 | 76.7 |
| River transport | 121.5 | 121.8 | 47.2 | 110.9 | 89.4 | 67.8 | .. | .. | .. |

Source: State Statistical Office

17.1: Type of Educational Institutions

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|
| Total | 989 | 972 | 1022 | 1028 | 1040 | 928 | 782 | 841 | 762 |
| General educational day-time institution | 590 | 591 | 604 | 607 | 615 | 634 | 643 | 679 | 663 |
| Vocational training institutions | 40 | 41 | 43 | 43 | 46 | 44 | 40 | 34 | 21 |
| Specialized secondary institutions | 28 | 28 | 28 | 29 | 30 | 31 | 32 | 26 | 34 |
| Higher educational institutions | 8 | 8 | 8 | 8 | 8 | 9 | 7 | 28 | 34 |
| Educational inst. for working people | 323 | 304 | 339 | 341 | 341 | 210 | 60 | 74 | 10 |

Source: State Statistical Office

17.2: Number of Students

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total | 511.7 | 517.7 | 528.2 | 535.3 | 537.1 | 516.2 | 467.5 | 426.5 | 407.5 |
| General educational day-time institution | 415.7 | 424.1 | 430.5 | 438.2 | 446.7 | 440.9 | 411.7 | 384.0 | 370.3 |
| Vocational training institutions | 27.7 | 29.3 | 32.1 | 33.8 | 34.1 | 29.1 | 19.3 | 11.3 | 5.3 |
| Specialized secondary institutions | 23.0 | 23.2 | 23.8 | 22.6 | 20.5 | 18.5 | 15.8 | 10.9 | 5.8 |
| Higher educational institutions | 24.6 | 23.5 | 22.6 | 20.7 | 19.5 | 17.3 | 17.5 | 17.5 | 25.3 |
| Educational inst. for working people | 20.7 | 17.6 | 19.2 | 20.0 | 16.3 | 10.4 | 3.2 | 2.8 | 0.8 |
| PER 1000 POPULATION | | | | | | | | | |
| Total | 280.8 | 276.5 | 275.1 | 272.1 | 266.0 | 248.7 | 219.6 | 195.9 | 184.3 |
| General educational day-time institution | 228.1 | 226.5 | 224.2 | 222.8 | 221.3 | 212.4 | 193.4 | 176.4 | 167.5 |
| Vocational training institutions | 15.2 | 15.7 | 16.7 | 17.2 | 16.9 | 14.0 | 9.1 | 5.2 | 2.4 |
| Specialized secondary institutions | 12.6 | 12.4 | 12.4 | 11.5 | 10.2 | 8.9 | 7.4 | 5.0 | 2.6 |
| Higher educational institutions | 13.5 | 12.6 | 11.8 | 10.5 | 9.7 | 8.3 | 8.2 | 8.0 | 11.4 |
| Educational inst. for working people | 11.4 | 9.4 | 10.0 | 10.2 | 8.1 | 5.0 | 1.5 | 1.3 | 0.4 |

Source: State Statistical Office

17.3: General Educational Day-time Institutions

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of educational day-time inst. | 590 | 591 | 604 | 605 | 615 | 634 | 643 | 679 | 663 |
| primary | 104 | 97 | 100 | 95 | 94 | 96 | 93 | 96 | 77 |
| non-complete secondary | 341 | 339 | 329 | 315 | 314 | 271 | 213 | 185 | 332 |
| complete secondary | 145 | 155 | 175 | 195 | 207 | 267 | 337 | 398 | 254 |
| Number of pupils, thous. | 415.7 | 424.1 | 430.5 | 438.2 | 446.7 | 440.9 | 411.7 | 384 | 370.3 |
| 1 - 3 classes | 153.1 | 156 | 157.8 | 162.9 | 165.4 | 166.3 | 154.6 | 144.4 | 142.1 |
| 4 - 8 classes | 226.4 | 230.4 | 235.3 | 236.9 | 240.8 | 233 | 219.5 | 206.1 | 195.1 |
| 9 -10 classes | 36.2 | 37.7 | 37.4 | 38.4 | 40.5 | 41.6 | 37.6 | 33.5 | 33.1 |
| Number of teachers, thous. | 17.1 | 17.5 | 18.4 | 19.2 | 19.8 | 20.6 | 20.5 | 19.4 | 19.2 |

Source: State Statistical Office

17.4: Vocational Training Institutions and Students

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|
| Vocational training institutions | 40 | 41 | 43 | 43 | 46 | 44 | 40 | .. | .. |
| industry | 5 | 5 | 6 | 6 | 7 | 7 | 9 | .. | .. |
| agriculture | 15 | 15 | 15 | 15 | 15 | 14 | 7 | .. | .. |
| construction | 13 | 14 | 14 | 14 | 16 | 17 | 17 | .. | .. |
| trade | 2 | 2 | 2 | 2 | 2 | 2 | 1 | .. | .. |
| other | 5 | 5 | 6 | 6 | 6 | 4 | 6 | .. | .. |
| Number of students, thous. | 27.7 | 29.3 | 32.1 | 33.8 | 34.1 | 29.1 | 19.3 | .. | .. |
| industry | 3.3 | 3.4 | 3.8 | 4.3 | 5.2 | 5 | 4.4 | .. | .. |
| agriculture | 8.2 | 8.3 | 8.8 | 8.7 | 8.2 | 5.9 | 2.4 | .. | .. |
| construction | 8.3 | 9.6 | 11.5 | 12.6 | 13.1 | 11.7 | 9.2 | .. | .. |
| trade | 0.6 | 0.8 | 0.9 | 1.1 | 1.1 | 0.9 | 0.4 | .. | .. |
| other | 2.8 | 3 | 3.3 | 3.9 | 3.6 | 3 | 1.6 | .. | .. |
| abroad | 4.5 | 4.2 | 3.8 | 3.2 | 2.9 | 2.6 | 1.3 | .. | .. |
| Enrolment of students, thous. | 13.1 | 14.2 | 14.6 | 14.8 | 14.4 | 10.5 | 6.6 | 4.4 | .. |
| Number of graduating students, thous. | 10.5 | 11.8 | 11.2 | 11.9 | 12.4 | 13.9 | 13.5 | 11.4 | .. |
| Number of teachers, thous. | 1.9 | 1.9 | 2.2 | 2.4 | 2.4 | 1.8 | 1.1 | .. | .. |

Source: State Statistical Office

17.5: Specialized Secondary Institutions: Students and Teachers

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|------|------|------|------|------|------|------|------|------|
| Specialized secondary institutions | 28 | 28 | 28 | 29 | 30 | 31 | 32 | 26 | 34 |
| Number of students, thous. | 23 | 23.2 | 23.8 | 22.6 | 20.5 | 18.5 | 15.8 | 10.4 | .. |
| day-time courses | 19.7 | 20.2 | 20.7 | 19.9 | 17.9 | 16.3 | 14 | 9.5 | .. |
| evening and correspondence courses | 1.9 | 1.5 | 1.6 | 1.4 | 1.3 | 1.3 | 1 | 0.3 | .. |
| abroad | 1.4 | 1.5 | 1.5 | 1.3 | 1.3 | 0.9 | 0.8 | 0.6 | .. |
| Number of teachers, thous. | 1.2 | 1.2 | 1.3 | 1.2 | 1.2 | 1.3 | 1.3 | .. | .. |

Source: State Statistical Office

17.6: Specialized Secondary Institutions: Enrollment

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|
| Enrolment - total | 7.7 | 7.1 | 6.9 | 6.0 | 5.9 | 5.8 | 4.2 | 3.2 | .. |
| day-time courses | 6.7 | 6.6 | 6.0 | 5.3 | 5.1 | 5.3 | 3.9 | 3.2 | .. |
| evening and correspondence courses | 0.6 | 0.2 | 0.5 | 0.4 | 0.5 | 0.4 | 0.2 | 0.0 | .. |
| abroad | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.1 | 0.1 | 0.0 | .. |
| Graduated - total | 6.0 | 6.3 | 6.4 | 7.0 | 7.0 | 6.6 | 6.7 | .. | .. |
| Domestic | 5.6 | 6.1 | 6.2 | 6.8 | 6.8 | 6.4 | 6.5 | 5.9 | .. |
| Abroad | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | .. |
| By branches: | | | | | | | | | |
| industry, construction, transport, commu | 2.3 | 2.2 | 2.2 | 2.2 | 2.5 | 2.5 | 1.8 | .. | .. |
| agriculture | 0.9 | 0.9 | 0.9 | 1.1 | 1.0 | 0.9 | 1.1 | .. | .. |
| economy, justice | 0.9 | 1.2 | 1.2 | 1.2 | 1.1 | 0.6 | 1.0 | .. | .. |
| public health, physical culture, sport | 1.1 | 1.2 | 1.3 | 1.5 | 1.4 | 1.5 | 1.5 | .. | .. |
| culture, education, art, cinema | 0.8 | 0.8 | 0.8 | 1.0 | 1.0 | 1.1 | 1.3 | .. | .. |

Source: State Statistical Office

17.7: Higher State Institutions

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------------|------|------|------|------|------|------|------|------|------|
| Higher institutions | 8 | 8 | 8 | 8 | 8 | 9 | 7 | 28 | 34 |
| Number of students, thous. | 24.6 | 23.5 | 22.6 | 20.7 | 29.5 | 17.3 | 17.5 | 17.5 | 25.4 |
| day-time courses | 15.0 | 14.7 | 14.3 | 13.4 | 12.9 | 12.7 | 13.2 | 14.2 | 19.3 |
| evening and correspondence courses | 3.5 | 2.7 | 2.2 | 1.7 | 1.2 | 1.1 | 0.7 | 0.4 | 0.2 |
| abroad | 6.1 | 6.1 | 6.1 | 5.6 | 5.4 | 3.5 | 3.6 | 2.9 | .. |
| Number of teachers | 1510 | 1488 | 1489 | 1462 | 1469 | 1465 | 1341 | .. | .. |
| candidate of science | 273 | 324 | 286 | 333 | 320 | 346 | 306 | .. | .. |
| doctor of science | 27 | 20 | 22 | 25 | 26 | 26 | 20 | .. | .. |

Source: State Statistical Office

17.8: Higher Institutions: Enrollment and Graduation

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|
| Enrollment - total | 5.4 | 4.9 | 5.0 | 4.2 | 3.8 | 3.8 | 3.2 | 4.6 | .. |
| day-time courses | 3.8 | 3.5 | 3.8 | 3.2 | 2.6 | 3.0 | 2.9 | 4.4 | .. |
| evening and correspondence courses | 0.4 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | .. |
| abroad | 1.2 | 1.1 | 1.1 | 0.9 | 1.1 | 0.7 | 0.2 | 0.1 | .. |
| graduated | 6.1 | 4.8 | 4.5 | 5.3 | 4.2 | 3.5 | 3.0 | 3.2 | .. |
| Number of students graduating by branches | 5.0 | 3.9 | 3.5 | 4.4 | 3.4 | 2.8 | 2.5 | .. | .. |
| industry, construction, transport, com | 1.5 | 1.0 | 0.8 | 1.4 | 0.8 | 0.8 | 0.6 | .. | .. |
| agriculture | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 | 0.3 | 0.4 | .. | .. |
| economy, justice | 1.0 | 0.9 | 0.8 | 0.9 | 0.5 | 0.6 | 0.2 | .. | .. |
| public health, sports | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | .. | .. |
| culture, education, art, cinema | 1.6 | 1.2 | 1.2 | 1.3 | 1.1 | 0.7 | 0.8 | .. | .. |
| Number of students graduating abroad | 1.1 | 0.9 | 1.0 | 0.9 | 0.8 | 0.7 | 0.5 | 0.6 | .. |

Source: State Statistical Office

17.9: Scientific Organizations

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|
| Number of scientific organizations /* | 38 | 39 | 38 | 42 | 42 | 43 | 71 | .. | 97 |
| Number of scientific workers | 2771 | 2815 | 2427 | 2759 | 2575 | 2825 | 2636 | .. | .. |
| in scientific organizations | 1893 | 1907 | 1557 | 1805 | 1816 | 2019 | 2034 | .. | .. |
| Number of persons with scientific degree | 1222 | 1285 | 1339 | 1417 | 1472 | 1484 | 1495 | .. | .. |

*/Academy of science as one

Source: State Statistical Office

17.10: Pre-School Institutions

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------------|------|------|------|-------|-------|-------|-------|------|------|
| Pre-school institutions | 1099 | 1116 | 1137 | 1194 | 1254 | 1350 | 1297 | 1023 | .. |
| number of children, thous. | 82.3 | 89.6 | 90.6 | 101.6 | 109.2 | 118.8 | 116.6 | 97.6 | .. |
| Creches | 419 | 420 | 419 | 424 | 432 | 441 | 414 | 217 | .. |
| number of children, thous. | 19.8 | 19.9 | 20 | 20.4 | 20.9 | 21.6 | 20.9 | 11.9 | .. |
| Kindergartens | 680 | 696 | 718 | 770 | 822 | 909 | 883 | 806 | .. |
| in urban and urban settlements | 288 | 300 | 319 | 348 | 391 | 501 | 451 | 325 | .. |
| in rural | 392 | 396 | 399 | 422 | 431 | 408 | 432 | 481 | .. |
| Children in the kindergartens, thous. | 62.5 | 69.7 | 70.6 | 81 | 88.3 | 97.2 | 95.7 | 85.7 | .. |
| in urban and urban settlements | 37.6 | 44.8 | 45.2 | 53.1 | 58.2 | 64.6 | 63.6 | 57.1 | .. |
| in rural | 24.9 | 24.9 | 25.4 | 27.9 | 30.1 | 32.6 | 32.1 | 28.6 | .. |

Source: State Statistical Office

17.11: Public Libraries

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Number of public libraries | 401 | 402 | 404 | 410 | 418 | 421 | 345 | 301 | .. |
| Library book stock, mln. pieces | 9.1 | 9.1 | 9.6 | 10.6 | 10.5 | 10.5 | 9.5 | .. | .. |
| Library books per person | 5.0 | 4.9 | 5.0 | 5.4 | 5.2 | 5.1 | 4.5 | .. | .. |
| Number of readers, thous. | 660.0 | 699.5 | 627.9 | 710.4 | 643.1 | 669.6 | 685.6 | .. | .. |

Source: State Statistical Office

18.1: Main Indicators of Public Health

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------------|------|------|------|------|------|------|------|------|------|
| Hospitals | 422 | 422 | 423 | 423 | 428 | 432 | 483 | 470 | .. |
| clinical and specialized | 60 | 61 | 62 | 60 | 58 | 57 | 50 | 54 | .. |
| inter-som hospitals | 50 | 49 | 32 | 31 | 32 | 32 | 45 | .. | .. |
| medical posts | 312 | 312 | 329 | 332 | 338 | 343 | 388 | .. | .. |
| medical posts staffed by physicians | 1237 | 1240 | 1252 | 1344 | 1375 | 1381 | 1680 | .. | .. |
| medical posts staffed by nurses | | | | | | | | | |
| doctor's assistants | 35 | 39 | 47 | 50 | 56 | 52 | 46 | 24 | .. |
| Chemist's shops | 497 | 503 | 528 | 524 | 485 | 483 | 457 | 477 | .. |
| for public services | 442 | 447 | 458 | 477 | 485 | 483 | 457 | 477 | .. |
| Women's consultations | 124 | 126 | 123 | 120 | 108 | 104 | 114 | .. | .. |
| Child milk fodder posts | 229 | 266 | 276 | 307 | 341 | 354 | 273 | .. | .. |
| Per 10000 population: | | | | | | | | | |
| physicians | 25 | 26 | 27 | 28 | 28 | 29 | 28 | 28 | .. |
| medical personnel of medium rank | 82 | 83 | 84 | 87 | 88 | 92 | 87 | 77 | .. |

Source: State Statistical Office

18.2: Number of Female Physicians

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------------------------------|------|------|------|------|------|------|------|------|------|
| Female physicians | 3015 | 3256 | 3645 | 3879 | 4129 | 4406 | 4522 | 4509 | .. |
| Share of female to total physicians | 65.6 | 66.9 | 70.2 | 70.7 | 72.2 | 71.3 | 73.7 | 74.5 | .. |

Source: State Statistical Office

18.3: Number of Physicians and Pharmacists

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|
| Total number of physicians | 4426 | 4691 | 5026 | 5485 | 5715 | 6180 | 6132 | 6053 | .. |
| experts of health services | 260 | 291 | 294 | 292 | 232 | 221 | 229 | 260 | .. |
| internists | 679 | 716 | 793 | 910 | 942 | 1041 | 1038 | 918 | .. |
| surgeons and traumatologists | 251 | 257 | 261 | 281 | 279 | 333 | 355 | 342 | .. |
| obstetricians and gynaecologists | 291 | 301 | 340 | 368 | 391 | 403 | 421 | 394 | .. |
| pediatrists | 970 | 1022 | 1080 | 1157 | 1212 | 1311 | 1177 | 1080 | .. |
| infectious disease specialists | 152 | 155 | 164 | 182 | 177 | 238 | 162 | 189 | .. |
| oncologists | 27 | 32 | 35 | 50 | 47 | 78 | 109 | 45 | .. |
| ophthalmologists | 68 | 66 | 87 | 93 | 116 | 87 | 87 | 92 | .. |
| otologists and laryngologists | 87 | 91 | 91 | 99 | 105 | 116 | 113 | 109 | .. |
| phthiatriests | 100 | 107 | 127 | 128 | 149 | 132 | 111 | 113 | .. |
| dermatologists and venerologists | 102 | 111 | 118 | 114 | 125 | 136 | 118 | 123 | .. |
| radiologists | 80 | 79 | 86 | 88 | 91 | 104 | 99 | 96 | .. |
| neurologists and psychiatrists | 185 | 193 | 215 | 228 | 223 | 242 | 238 | 227 | .. |
| physical-therapy specialists | 79 | 89 | 85 | 92 | 102 | 124 | 122 | 117 | .. |
| stomatologists | 215 | 244 | 213 | 179 | 266 | 293 | 305 | 298 | .. |
| pathologists, anatomists and forensic | 65 | 80 | 63 | 68 | 73 | 84 | 69 | 68 | .. |
| specialists for laboratory analysis | 151 | 144 | 173 | 184 | 212 | 219 | 222 | 193 | .. |
| epidemiologists and disinfectionists | 253 | 274 | 240 | 274 | 323 | 248 | 265 | 278 | .. |
| other | 413 | 439 | 561 | 698 | 650 | 770 | 892 | 1111 | .. |
| pharmacists | 349 | 372 | 401 | 421 | 441 | 452 | 375 | 382 | .. |

Source: State Statistical Office

18.4: Medical Personnel of Medium Rank

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Total | 15159 | 15691 | 16410 | 17227 | 18047 | 19059 | 18731 | 17023 | .. |
| physician's assistants | 3807 | 3910 | 4133 | 4154 | 4258 | 4217 | 4166 | 3783 | .. |
| laboratory assistants | 984 | 988 | 1031 | 1136 | 1187 | 1265 | 1212 | 1111 | .. |
| pharmacists | 1093 | 1217 | 1248 | 1243 | 1286 | 1288 | 1305 | 1017 | .. |
| nurses | 8504 | 8771 | 9189 | 9809 | 10415 | 11296 | 11155 | 10278 | .. |
| X-ray technicians | 278 | 292 | 302 | 305 | 309 | 336 | 310 | 271 | .. |
| disinfectors | 413 | 431 | 436 | 475 | 484 | 530 | 471 | 467 | .. |
| dental technicians | 80 | 82 | 71 | 105 | 108 | 127 | 112 | 96 | .. |

Source: State Statistical Office

18.5: Number of Hospital Beds

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------|------|------|------|------|------|------|------|------|------|
| Total (thousands) | 21.2 | 21.6 | 22.6 | 23.4 | 24.2 | 26.4 | 26.0 | 24.2 | .. |
| per 1000 population | 11.6 | 11.5 | 11.8 | 11.9 | 12.0 | 12.7 | 12.2 | 11.1 | .. |

Source: State Statistical Office

18.6: Infant Mortality

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|------|------|------|------|------|------|------|------|------|
| Mortality, by age | | | | | | | | | |
| under 1 (infant) | 6406 | 5375 | 4705 | 4844 | 4718 | 4713 | 4390 | .. | .. |
| under 3 | 3005 | 2054 | 2057 | 2029 | 1951 | 2019 | 1864 | .. | .. |
| Infant mortality per 1000 live births | 76 | 75 | 66 | 64 | 64 | 64 | 63 | 60 | .. |
| Maternal mortality per 1000 live births | 15 | 18 | 13 | 15 | 13 | 12 | 13 | 20 | .. |
| Mother mortality with child born | 106 | 126 | 90 | 112 | 97 | 89 | 93 | .. | .. |

Source: State Statistical Office

18.7: Beds in Hospital-Type Institutions

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Beds total | 21227 | 21578 | 22633 | 23374 | 24160 | 26427 | 26017 | 24225 | .. |
| of which | | | | | | | | | |
| therapeutical cases | 3075 | 3120 | 5015 | 5440 | 5561 | 6180 | 6210 | 5953 | .. |
| surgical and traumatic cases | 1306 | 1609 | 1647 | 1767 | 1700 | 2035 | 2105 | 2023 | .. |
| diseases of the eye | 130 | 129 | 134 | 180 | 134 | 157 | 185 | 139 | .. |
| oto-laryngological cases | 166 | 206 | 228 | 367 | 217 | 229 | 261 | 225 | .. |
| obstetrical cases | 2360 | 2351 | 2443 | 2806 | 2685 | 2700 | 2771 | 2895 | .. |
| gynaecological cases | 581 | 569 | 675 | 826 | 866 | 891 | 904 | 760 | .. |
| mental cases | 630 | 633 | 648 | 706 | 696 | 765 | 758 | 584 | .. |
| nerve disease cases | 1020 | 1034 | 1044 | 1072 | 1064 | 1379 | 984 | 881 | .. |
| pediatrics | 5522 | 5696 | 6077 | 7184 | 6285 | 6384 | 6455 | 6003 | .. |

Source: State Statistical Office

19.1: Value of Assets Privatized by December 1993
(Million tugrik)

| | SMALL | LARGE | ALL |
|--------------------|---------------|----------------|----------------|
| Industry | 194.4 | 5037.9 | 5232.3 |
| Construction | 155.6 | 1269.1 | 1424.7 |
| Transport | 143.2 | 524.5 | 667.7 |
| Telecommunications | 0.0 | 12.1 | 12.1 |
| Trade | 946.4 | 577.7 | 1524.1 |
| Housing | 7.9 | 0.0 | 7.9 |
| Services | 307.3 | 26.7 | 334.0 |
| Agriculture | 1851.7 | 4091.7 | 5943.4 |
| State farms | 15.3 | 1245.8 | 1261.1 |
| Other | 677.8 | 248.8 | 926.6 |
| TOTAL | 4299.6 | 13034.3 | 17333.9 |

Source: World Bank estimates

19.2: Number of Privatized Entities

| | Small Privatization | | | | Large Privatization | | | | Total | All Entities |
|--------------------|---------------------------|-------------|----------------|-------------|----------------------|--------------------|----------------------|---------------------------|------------|--------------|
| | Limited Liability company | Partnership | Proprietorship | Total | Majority state owned | Partly state owned | Shareholding company | Limited Liability company | | |
| Industry | 51 | 72 | 17 | 140 | 40 | 11 | 93 | 28 | 172 | 312 |
| Construction | 55 | 125 | 29 | 209 | 20 | 4 | 58 | 70 | 152 | 361 |
| Transport | 42 | 23 | 66 | 131 | 22 | 7 | 26 | 25 | 80 | 211 |
| Telecommunications | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Housing | 6 | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| Trade | 207 | 770 | 217 | 1194 | 27 | 5 | 11 | 80 | 123 | 1317 |
| Services | 68 | 563 | 439 | 1070 | 1 | 1 | 1 | 5 | 8 | 1078 |
| Agriculture | 1 | 17 | 31 | 49 | 0 | 0 | 0 | 99 | 99 | 148 |
| State farms | 2 | 25 | 12 | 39 | 50 | 23 | 33 | 107 | 213 | 252 |
| Other | 66 | 104 | 117 | 287 | 0 | 2 | 14 | 12 | 28 | 315 |
| TOTAL | 498 | 1702 | 928 | 3128 | 160 | 53 | 237 | 426 | 876 | 4004 |

Source: Privatization Commission and World Bank estimates

20.1: Cinema and Film Projectors

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|--|------|------|------|------|------|------|------|------|------|
| Number of cinemas | 27 | 27 | 28 | 28 | 27 | 30 | 34 | 29 | .. |
| Number of film projectors | 535 | 531 | 532 | 545 | 581 | 522 | 386 | 260 | .. |
| stationary | 33 | 33 | 33 | 39 | 65 | 37 | 18 | 36 | .. |
| portable | 502 | 498 | 499 | 506 | 516 | 485 | 368 | 224 | .. |
| Number of cinema-goers, mln | 19.1 | 20.0 | 21.3 | 22.4 | 20.1 | 15.8 | 11.5 | 6.6 | .. |
| Average number of films seen by people | 10 | 10 | 11 | 11 | 10 | 8 | 12 | 3 | .. |
| Production of films | 54 | 49 | 53 | 45 | 40 | 48 | 46 | 32 | .. |
| long films | 8 | 6 | 7 | 6 | 7 | 6 | 6 | 17 | .. |

Source: State Statistical Office

20.2: News Papers, Books and Magazines

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|------|------|------|
| Number of books and pamphlets | 1009 | 889 | 977 | 861 | 1006 | 717 | 381 | .. | .. |
| copies,mln | 6.4 | 6.9 | 7.5 | 7.8 | 8.4 | 6.4 | 1.9 | .. | .. |
| printer's sheets,mln | 7.7 | 7.9 | 7.8 | 6.7 | 7.5 | 5.7 | 3.5 | .. | .. |
| Number of magazines | 38 | 38 | 38 | 40 | 41 | 45 | 13 | 9 | .. |
| copies,mln | 6.2 | 6.6 | 7.2 | 7.2 | 6.9 | 6.4 | 0.3 | .. | .. |
| Number of newspapers | 36 | 35 | 35 | 36 | 35 | 56 | 64 | 44 | .. |
| copies,mln | 121.8 | 122.7 | 132.4 | 127.7 | 148.2 | 148.0 | 21.0 | .. | .. |
| average copies of dailies, thous. | 882 | 861 | 936 | 915 | 991 | 1522 | 1528 | .. | .. |

Source: State Statistical Office

20.3: Sports

| | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Number of sports societies | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | .. |
| Number of sportsmen and women, thous. | 80.3 | 75.2 | 78.7 | 91.0 | 93.0 | 94.9 | 94.4 | 95.1 | .. |
| Merited Masters of Sports | 25 | 26 | 27 | 27 | 33 | 39 | 42 | 47 | .. |
| Country Merited Trainers/Coaches | 11 | 11 | 12 | 12 | 12 | 14 | 17 | 13 | .. |
| Country sports record holders | 33 | 43 | 55 | 87 | 41 | 58 | 65 | 69 | .. |
| Country sports champions | 324 | 320 | 448 | 345 | 489 | 345 | 464 | 534 | .. |
| Masters of Sports | 1408 | 1270 | 1357 | 1776 | 1591 | 1776 | 1999 | 2074 | .. |
| Persons with a sports rating | 78768 | 73753 | 77010 | 88974 | 90771 | 91097 | 91260 | 92753 | .. |

Source: State Statistical Office

