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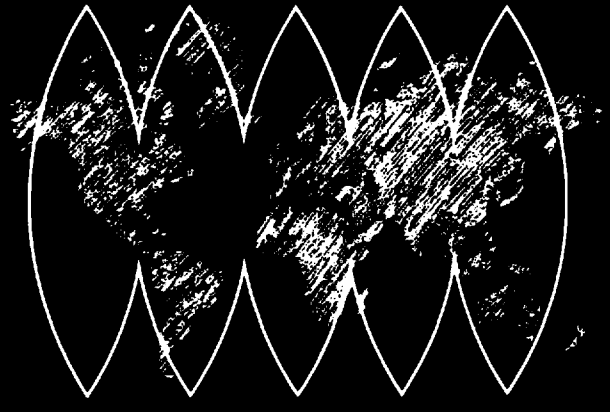
Central Asian Republics

Industrial development review

Volume I
Kazakstan, Kyrgyz Republic and Tajikistan



The Central Asian Republics

Volume I: KAZAKSTAN
KYRGYZ REPUBLIC
TAJIKISTAN

Industrial Reform and Restructuring

The Central Asian Republics

Volume I

KAZAKSTAN
KYRGYZ REPUBLIC
TAJIKISTAN

Industrial Reform and Restructuring

INDUSTRIAL DEVELOPMENT REVIEW SERIES

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PREFACE

This Industrial Development Review of the central Asian republics has been prepared by UNIDO as part of its research programme to provide surveys and analyses of the industrial development process at the country level. It represents the latest issues of a series of sales publications intended to provide a service to those within UNIDO and other international agencies concerned with industrial policy, planning, project development and implementation, and to be a ready source of information for governments, investors, industrialists, entrepreneurs, policy-makers, international organizations, aid agencies, academics, and research institutes.

The Reviews have two separate but interrelated objectives: they are designed to facilitate and promote the activities of UNIDO, as well as to serve as an informative and analytical document for the international industrial community. The analyses contained in the Reviews are intended to support the technical assistance programming for industry by providing industry-specific analysis which may serve as an input to programming activities and as a basis for informed discussions. The Reviews are also designed to accommodate the needs of a wide readership in the international community associated with industry, finance, trade, business, research and government, laying the groundwork for undertaking in-depth analyses of specific aspects of industrial development trends, policies and strategies.

The Review has been published in two volumes. The present volume covers Kazakstan, the Kyrgyz Republic and Tajikistan, and the companion volume covers Azerbaijan, Turkmenistan and Uzbekistan.

Each country chapter comprises three sections. The first section presents an overview of the economy, analyzing the macroeconomic and industrial policy environment of the country in question. The second section reviews the manufacturing sector of each country at the aggregate level, and examines, *inter alia*, its structure and growth performance, employment trends, productivity, contribution to foreign trade, and environmental impact. The final section surveys individual branches of manufacturing industry, and provides detailed studies of their resource base and past development trends as well as assessing their prospects for the future.

This Review was prepared on the basis of information available in May 1996.

EXPLANATORY NOTES

References to dollars ($) are to United States dollars, unless otherwise stated.

Dates divided by a slash (1991/92) indicate a fiscal year or a crop year. Dates separated by a hyphen (1991-92) indicate the full period, including the beginning and end years.

In Tables:
Totals may not add precisely because of rounding.
Two dots (..) indicate that data are not available or not separately reported.
A dash (-) indicates that the value is nil or negligible.

The following abbreviations are used in this publication:

AMC	Anti-Monopoly Committee
ASSR	Autonomous Soviet Socialist Republic
BAT	British American Tobacco
BP	British Petroleum
CBR	Central Bank of Russia
CIS	Commonwealth of Independent States
CMEA	Council for Mutual Economic Assistance
EBRD	European Bank for Reconstruction and Development
ECO	Economic Cooperation Organization
ERRA	Enterprise Reform and Resolution Agency
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GKI	Committee for State Property (Goskomimishchestvo)
GSP	generalized system of preferences
IDA	International Development Agency
IMF	International Monetary Fund
INTIB	UNIDO Industrial and Technological Information Bank
ISO 900	International Standards Organization 900 series
KCS	Kazakstan-Caspishelf
MFN	most favoured nation
NAFI	National Agency for Foreign Investments
NBK	National Bank of Kazakstan or the Kyrgyz Republic as applicable
NBT	National Bank of Tajikistan
NMP	net material product
OECD	Organization for Economic Cooperation and Development
PTT	telecommunications company of Turkey (Posta, Telefon, Telegraf)
Rb	rouble
RISTI	Research Institute of Scientific and Technical Information
SDR	special drawing rights
SEC	State Economic Committee
SMEs	small and medium-sized enterprises

SSR	Soviet Socialist Republic
STF	systemic transformation facility
UK	United Kingdom
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
USA	United States of America
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
VAT	value added tax

BASIC INDICATORS

BASIC INDICATORS I: THE ECONOMY

Indicator		Kazakstan	Kyrgyz Republic	Tajikistan
Population (mid-year 1994) (Millions)	:	16.7	4.5	5.7
Annual average growth rate of population, 1985-94 (Percentage)	:	0.7	1.3	2.7
GDP at market prices, 1994 ($ million at market exchange rates)	:	1,842	991	779
Income per head, 1994				
GDP per head ($ at market exchange rates)	:	110	220	137
GNP per head ($ at purchasing power parities)	:	2,830	1,170	1,160
Real output growth, 1994 (Percentage)				
GDP	:	-25	-27	-21
Agriculture		-23	-15	..
Industry		-28	-30	..
Economic structure, 1994 (Percentage)				
Agriculture	:	12.9	34.7	19.0
Manufacturing		30.9	23.8	34.6
Construction		9.3	4.2	12.0
Other		46.9	37.3	34.4
Retail price inflation, 1994 (Annual average, percentage)	:	1,880	280	5[a/]
Public finance, 1994 (Percentage of GDP)				
Budget surplus/deficit	:	-6.5	-8.4	-6.4
Public spending		24.0	32.7	34.2
Foreign trade, 1994 ($ million)				
Exports	:	3.3	0.3	0.5
Imports		4.1	0.4	0.6
Balance		-0.8	-0.1	-0.1
Current account balance, 1994 ($ billion)	:			
Before official grants		-0.3	-0.2	-0.1
Official grants		1.2	0.1	-
After official grants		0.8	-0.1	-0.1
Official exchange rate, 1994 (national currency equivalents to $1, annual average)	:	40.3	10.8	2,204.7

Sources: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995, European Bank for Reconstruction and Development, *Transition Report Update*, London, April 1996.

a/ End-year.

BASIC INDICATORS II: THE INDUSTRIAL SECTOR

Indicator	Kazakstan	Kyrgyz Republic	Tajikistan
Value of industrial production, 1994 ($ million)[a/]	8,460	575	871
Structure of industrial production, 1994 (Percentage of total)			
Fuel and energy	40.8	26.0	8.6
Processed foods	4.5	11.7	6.3
Meat and dairy products	5.1	4.1	2.1
Fish	0.3	-	0.1
Textiles	2.5	17.9	25.9
Clothing	0.8	1.7	1.3
Leather goods	0.5	1.4	0.3
Wood products, paper and pulp	1.0	.6	0.4
Chemicals and petrochemicals	3.7	0.2	3.6
Building materials	4.1	4.2	3.5
Metallurgy	23.9	10.9	31.5
Machine building	7.3	10.5	4.0
Other	5.5	10.8	21.0
Real growth of industrial production, 1993[b/] (Percentage)			
Fuel and energy	-20.3	-8.9	-13.2
Processed foods	-28.1	-19.2	-28.8
Meat and dairy products	-24.3	-40.5	-34.3
Fish	-58.6	-33.3	-39.0
Textiles	-67.2	-10.9	-35.8
Clothing	-80.2	-12.0	-41.8
Leather goods	-24.3	-26.5	-77.4
Wood products, paper and pulp	-5.8	-35.8	-78.7
Chemicals and petrochemicals	-19.1	-37.5	-32.0
Building materials	-28.2	-46.5	-37.6
Metallurgy	9.0	-22.6	-7.5
Machine building	-16.7	-41.1	-38.5
Total	-27.4	-24.1	-30.8
Manufacturing employment, 1993			
Thousand employees	1,305	270	219
Percentage of total	18.8	16.1	11.8
Average wage in manufacturing, 1994 ($ per month)[a/]	31.0[c/]	36.0	31.1

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

a/ Converted at annual average market exchange rates.
b/ 1994 for Tajikistan
c/ 1993.

SUMMARY

OVERVIEW

This document is the first of two volumes reviewing the industrial development performance and potential of six newly-independent central Asian republics of the former USSR: Azerbaijan, Kazakstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan. It begins with a brief introduction discussing the general problems of structural adjustment faced by all of these countries in the context of their transition from an economic system based on central planning to one guided by market forces. This is followed by three chapters surveying the industrial development trends and prospects of Kazakstan, the Kyrgyz Republic and Tajikistan. Each country chapter provides an overview of the economic and policy environment, an analysis of the structure and performance of the manufacturing sector at the aggregate level and comprehensive profiles of individual manufacturing branches.

INTRODUCTION

The dissolution of the USSR resulted in the opening-up of a new and vast region in central Asia, comprising the recently independent states of Azerbaijan, the Kyrgyz Republic, Kazakstan, Tajikistan, Turkmenistan and Uzbekistan. Although low priority was placed on the industrial development of this region within the centralized planning system of the former USSR, most of the central Asian countries nevertheless possess a strong industrial base with the capacity to manufacture a number of capital goods and a wide range of light industrial products. With abundant natural resources and a substantial reservoir of basic industrial skills, these countries possess an enormous potential for economic and industrial growth. Their ability to realize this potential is inhibited, however, by the lack of an entrepreneurial base and of a market-oriented system of industrial production and technological development.

In order to rejuvenate the industrial development of their economies and achieve the transition to a market-oriented system, the countries of the central Asian region will need to create an environment in which private enterprise can flourish. This will require the privatization of a large segment of their industrial base and the development of an appropriate institutional infrastructure designed to encourage and support private initiative. Considerable training in the skills required to operate under a market-oriented economy, such as cost-accounting, marketing and quality-control, will be necessary. This will have to be accompanied by the creation of an appropriate framework of market supervision, including the introduction of enforceable laws governing competition and bankruptcy. Many of the existing enterprises also require substantial restructuring in order to enable them to remain afloat in the increasingly competitive markets in which they are forced to operate following the loss of their traditional markets and sources of supply in the other states of the former USSR.

The implementation of privatization has varied considerably in the six central Asian states. The privatization of small-scale enterprises has proceeded smoothly but a more gradual approach has been adopted to the privatization of the larger state-owned enterprises. While such a sequential

approach will help to minimize the inevitable dislocations caused by the process of economic transformation in the short term, there is a risk that this could result in the persistence of state capitalism dominated by large state-owned enterprises. This will almost certainly not be desirable in the long run.

Privatization has to be considered in the context of the restructuring of state-owned enterprises to ensure that they function efficiently in a competitive environment. This will require the development of new products, the acquisition of new technologies and production processes, and the application of modern managerial, accounting and marketing practices. For enterprises remaining under state control, such a reorientation to market principles will also require the imposition of hard budget constraints and the end to other privileges, such as preferential access to credit and official purchases through the state-order system.

The process of privatization and enterprise restructuring requires the establishment of an appropriate policy framework and the creation of a suitable institutional infrastructure for the mobilization of foreign and domestic investment and the optimal utilization of available resources. Clear objectives will also have to be set with regard to the extent of the desired economic and industrial restructuring. While the general goal must be increased market-orientation and a dismantling of the prevailing economic structure dominated by state capitalism, it must be recognised that this will be a long-term process. Over the short to medium term the principal objective must be to achieve a more balanced mixed economy. A comprehensive shift to an economic structure based predominantly on private enterprise is unlikely to be achieved in the foreseeable future.

An essential prerequisite for the evolution of such a mixed economy will be the development of an appropriate legal framework comprising a comprehensive body of company legislation to define various forms of business organization, management control, contractual relationships, employment regulations, competition rules and intellectual property rights. Although some basic legislation of this kind has been adopted in all of the central Asian states, particularly with respect to the ownership of property and the operation of business activities, the existing legal framework is by no means comprehensive. A review of the total package of laws and regulations relating to industrial activities is urgently required in all of these countries, which would include revision of the existing tax system in order to provide investment incentives for both foreign and domestic entrepreneurs.

Much also needs to be done about entrepreneurship development. Private-sector development has generally been viewed as being synonymous with the privatization of small enterprises in the central Asian republics. Once ownership has been transferred, little responsibility is taken for meeting the needs of these enterprises for credit, technology and marketing support. This needs to be remedied through the creation of a conducive climate for investment and risk-taking, and the provision of entrepreneurial training, credit, technology and marketing facilities for local entrepreneurs. The establishment of physical support facilities, such as industrial estates and technology parks, could also make a major contribution to the development of local entrepreneurship.

Attention also needs to be paid to retraining and upgrading the available pool of technologists, managers and other specialized personnel through the establishment of training institutions. The development of this technical and managerial expertise would be supported through inflows of foreign technology and know-how through joint ventures or technology-licensing agreements with foreign companies. This will, however, require a comprehensive knowledge of alternative sources of technology, and of the negotiating skills and procedures for the acquisition of such technology.

The successful introduction of this technology will require the provision of research facilities to facilitate the adaptation of imported technologies to local conditions, either through restructuring the existing agencies dealing with science and technology, or through the establishment of new specialized institutes for technological information and development.

In order to ensure competitive efficiency, it will be necessary to achieve specific quality standards in terms of products and production methods, such as the ISO 9000 series representing international standards for design, implementation and quality management for a wide range of products. The adoption of these standards will have to be accompanied by the establishment of certification bodies. These bodies and associated centres for productivity and standards need to be established with the minimum of delay in each of the central Asian countries if their enterprises are to compete effectively in international markets.

In view of the capital and technology constraints facing the countries of central Asia, they will need to make special efforts to promote inflows of foreign direct investment (FDI). The degree of such investment has so far been limited, due both to a reluctance on the part of multinational companies and an ambivalent attitude on the part of the national authorities, which have tended to scrutinize such investment proposals carefully and to limit foreign ownership to minority holdings. Consequently most of the foreign investment to date has been concentrated in primary industries involving the exploitation of natural resources, which offer sufficiently high potential profits to attract investors. By contrast, there has been relatively little foreign investment in the manufacturing sector.

In order to increase the level of foreign investment interest, the governments of the central Asian republics will need to increase the attractiveness of their business environments. For the majority of potential investors this will require the establishment of clearly defined regulations and investment guarantees and the promise of the rule of law. Fairly well defined policies and procedures regarding foreign investment have already been adopted in the central Asian republics, but they may need to be further refined and expanded. Once a more conducive environment for foreign direct investment has been put in place, it will also be necessary to publicise the opportunities they offer. For this purpose a list of preferred fields for foreign investment should be announced and published from time to time, together with profiles of selected sectors and investment projects.

It is essential that the industrial development of the central Asian republics should be carried out in an environmentally sustainable manner. This will require drawing up detailed, realistic environmental policies and programmes. Like other republics of the former USSR, the legislation enacted under the centralized Soviet system established high standards and requirements for environmental protection, most of which were not adequately monitored or complied with. In the present context it would be necessary to establish standards and to ensure that they are fully complied with, if necessary through the imposition of severe penalties for violating environmental regulations.

One of the most crucial needs of the central Asian republics is to improve and expand their trade, investment and industrial linkages with countries outside the former USSR, and all have joined a number of international trade organizations and entered into bilateral agreements. At the same time, however, it is also critically important that they retain their strong links with the republics of the former USSR and the Russian Federation in particular. In the short to medium term these countries will remain important markets for both inputs and outputs, and the Russian Federation will continue to play a dominant role in the development and marketing of the region's important oil and gas resources.

CHAPTER ONE: KAZAKSTAN

Recent economic trends

Until the turn of the 19th century the economy of Kazakstan was dominated by traditional nomadic pastoralist agriculture, although some degree of settled cultivation had begun to be introduced by Russian immigrants after the abolition of serfdom in Russia in 1861. The first serious efforts at economic development were launched in the 1920s and 1930s, when agriculture was collectivized, industrialization was promoted and the mineral wealth of the republic began to be exploited. This was followed by the introduction of the "Virgin Lands" programme in the 1950s, which brought thousands of new Russian immigrants to previously uncultivated land in the north of the republic. The high rate of population growth and the accompanying increase in agricultural production stimulated a vigorous expansion of the economy during the 1960s and 1970s, although the rate of economic growth began to slow towards the end of the latter decade and averaged less than 1 per cent per year in the 1980s.

The economy of Kazakstan, like the other republics of the former USSR, was developed to serve the needs of the centre. Its productive facilities were thus more closely integrated with those of the union than with their counterparts within the republic. By the early 1990s the republic consequently was facing major obstacles and needed to undertake extensive restructuring to ensure its continued economic development. From 1991 onwards the political leadership of the republic concluded that the only way to reinvigorate the economy was through a comprehensive move towards the free market, and drew up a wide-ranging reform programme calling, *inter alia,* for the mass sale of state assets.

The achievement of independence in 1991 resulted in the disruption of the forward and backward linkages of the Kazakstan economy with the other republics, upon which it was heavily dependent. The economy has contracted continuously in real terms since 1991, and a full-scale recovery is not expected until 1997. Trade with the republics of the former USSR has decreased steadily since 1991, but the country has begun to develop new trading links with countries beyond the borders of the former USSR. The process of price liberalization, which began in 1991, reinforced inflationary pressures generated by the expansionary monetary policy prevailing in the rouble area in 1992 and 1993, prompting annual inflation rates of 1,500-1,900 per cent in 1992-94. More recently the government appears to have succeeded in curbing these inflationary pressures, with the year-on-year inflation rate falling from 1,100 per cent to 60.3 per cent between January and December 1995.

Since Kazakstan historically received substantial budgetary support from the central authorities in Moscow, the dissolution of the USSR had serious budgetary implications for the government. In order to maintain a degree of fiscal equilibrium, public spending has been significantly reduced and efforts have been made to cut the consolidated budget deficit from 7.3 per cent of GDP in 1992 to 3.3 per cent in 1995, albeit with some fluctuations in the intervening years. Great care has also been taken to restrain the growth in visible unemployment, although hidden unemployment, including enforced leave, is high, resulting in low rates of labour productivity and enterprise profitability as well as low real wages.

In November 1993 Kazakstan withdrew from the rouble zone and issued a new currency called the tenge in order to enable the Kazak authorities to gain control over the republic's monetary policy. By December the republic had negotiated a full stand-by agreement with the IMF and in the following months the government began to accelerate the pace of reform, raising taxes, reducing public spending and further raising the level of controlled prices. The positive results of these

measures led to the signing of a second stand-by agreement with the IMF in May 1995, which provides for the republic to receive $300 million from the IMF as part of a $1 billion package of international financial assistance. The measures to reform the economy have also helped to increase the attractiveness of Kazakstan to foreign investors, and substantial volumes of foreign direct investment have been committed in the oil, banking, light manufacturing and hotel sectors.

The economic structure

Kazakstan is the second largest of the former republics of the USSR, and has a very varied climate. It is the best endowed of the central Asian republics in terms of natural resources and possesses vast expanses of agricultural land. The country also has large and diverse mineral deposits, which have enabled the development of important extraction and processing industries.

As a result of the high levels of Russian immigration since the 1950s, the country's population of some 17 million is evenly balanced between ethnic Kazaks and Russians. This balance has begun to shift since the country achieved independence, however, because of high levels of emigration by non-Kazaks and the immigration of Kazaks from surrounding countries. Kazaks have a higher birth rate than ethnic Russians, and the Kazak population grew by 25.1 per cent between 1979 and 1989. The population is consequently young, with some 30 per cent under 15 years of age and only 8 per cent over the age of 60.

Kazakstan has a strong agricultural base and produces significant quantities of grain, fruits, sugar beet, vegetables, potatoes and cotton. Livestock breeding is very important, as is the production of both karakul and astrakhan wools. Since less than 1 per cent of the country's agricultural land is irrigated, however, the sector is highly susceptible to the weather and output has fluctuated considerably in recent years in response to changes in weather patterns. The concentration of irrigation in only four major basins has caused severe environmental damage, which is especially serious in the Aral Sea region.

Agricultural production in Kazakstan is based mainly on some 8,000 state and collective farms, and little progress has been made in the privatization of farmland. The country's agricultural production units consequently have a very large average size, estimated at 35,000-40,000 hectares, and frequently contain substantial tracts of marginal land. Reinforced by other inefficiencies, this has resulted in the country's cereal yields being low by international standards and in a substantial proportion of the state farms being unprofitable. Another important constraint facing the agricultural sector is its heavy dependence on other republics of the former USSR for imports of equipment, spare parts, veterinary medicines, feed protein and additives, some fertilizers and chemicals. This consequence of the high degree of inter-republic specialization in the former USSR will significantly hamper the further development of the agricultural sector in the short to medium term.

The mining industry is highly diversified, and has become the most important sector of Kazakstan's economy. It is based on the country's extensive range of mineral resources, which include significant reserves of iron ore, lead, titanium, magnesium, chromium, tungsten, molybdenum, gold, silver, copper and manganese, as well as oil, natural gas and coal. As in agriculture, however, the policies of inter-republic specialization pursued by the former USSR have inhibited the development of a processing infrastructure in Kazakstan, and hence have prevented the country from being able to take full advantage of its mineral resources. With the known reserves widely believed to understate the true scale of Kazakstan's mineral resource base, the mining and minerals processing industries represent the country's greatest asset for future economic growth, and their development is being actively encouraged by the government.

Manufacturing in Kazakstan was developed to serve the greater Soviet market, and is thus extremely specialized in Western terms. The industrial sector was geared towards heavy industry, especially mining, ferrous metallurgy, chemicals and machinery, with little attention paid to the production of consumer goods. This emphasis on specialization and economies of scale has resulted in a number of manufacturing enterprises in Kazakstan acquiring monopoly powers, which the government sought to restrain through the enactment of anti-monopoly legislation in September 1992.

The large size and geographical diversity of Kazakstan necessitate a well-developed transport and communications infrastructure. The transport system is dominated by an extensive rail network, which is closely integrated with the railway network of the Russian Federation and is also connected to the railway system of China. The railways are heavily dependent upon the Russian Federation and the Ukraine for spare parts, equipment and rolling stock, however, which has resulted in widespread shortages in recent years. The road transport industry faces similar problems, with many of the roads being in disrepair and much of the country's fleet of trucks being only partially operational due to a lack of spare parts from the Russian Federation and Belarus. Air transport to and within Kazakstan is limited but improving, and a domestic airline, Kazak Airlines, has been established with 100 aircraft inherited from Aeroflot.

The telephone system in Kazakstan is extremely limited and largely obsolete. Some improvements have been initiated in recent years, however, including the establishment of links to the Intelsat system and the installation of international switching exchanges in several of the major cities. The full upgrading of the system to average international standards has been estimated to require $6.5 billion in new investment.

The banking system is overseen by the National Bank of Kazakstan (NBK), which was established in December 1990 but had little effective control over the monetary system until Kazakstan's withdrawal from the rouble zone in November 1993. The commercial banking structure is dominated by a four large state-owned banks (including a savings bank), which have traditionally been specialized by sector, even though a liberalization of banking regulations during the past few years has resulted in a significant increase in the number of banks, including the establishment of several foreign joint-venture banks. A substantial, though unknown, proportion of the banking system's assets are reported to be non-performing, however, which reduces its ability to fund new investments. The restructuring of the banking industry consequently constitutes one of the prime short-term objectives of the government's economic reform programme.

Although trade and other services have traditionally played a secondary role in the economy of Kazakstan, they are attracting considerable investment and growing rapidly. Tourism is almost non-existent at present, but offers great potential for the future in view of the country's long Caspian Sea coastline and its numerous places of cultural, historical and natural interest. The continued inflow of foreign investors and businessmen will also generate a growing demand for high-quality hotels.

Kazakstan has traditionally been an open economy, not least because its specialization during the Soviet era left it highly dependent on the other republics of the former USSR for imports of certain items. The unravelling of the inter-USSR trade links since the early 1990s has prompted Kazakstan to search for new markets outside the boundaries of the former USSR, however, which has resulted in a progressive shift in the country's trade patterns. This is likely to be accompanied by a diversification of the commodities traded, with the share of petroleum products, processed minerals and finished goods in Kazakstan's exports likely to increase relative to that of raw or semi-processed minerals in line with its efforts to develop domestic processing industries. Light

industrial goods, and consumer products in particular, will remain the dominant imports for some time to come.

The macroeconomic policy environment

Like the other republics of the former USSR, Kazakstan has embarked on a unique and historic transformation from a command economy to a market-oriented system. Since almost 90 per cent of the country's economy was in the hands of the state in 1990, the privatization of existing enterprises and the encouragement of new private businesses is a critical necessity. The Kazakstan authorities have acknowledged the extensive restructuring needed to accomplish this transformation as well as the heavy demands it will place on external technology and capital, and are actively encouraging foreign direct investment as a result.

In order to attract the necessary foreign investment and to encourage private entrepreneurs to invest, the government knows that it must also develop a stable economic environment and a legal infrastructure within which such investments will be able to flourish. The process of economic reform has already begun, with changes being made in the focus, goals and institutions of fiscal, monetary and trade policy, the widespread liberalization of prices and the introduction of a new currency. From almost 10 per cent in 1990, the ratio of the budget deficit to GDP was reduced to an estimated 3.5 per cent in 1995, and the imposition of tight monetary controls after the introduction of the national currency, the tenge, in November 1993 has helped to curb the previously rampant inflation. Considerable progress has also been made in the liberalization of domestic and foreign trade: most domestic retail and wholesale prices have been freed and most of the restrictions on the country's international trade have been lifted.

Recognizing that Kazakstan faces an acute lack of the skills required to make the transition from a command economy to a market-oriented economy, the government has taken steps to fill the existing skill gaps. These include the establishment of a special institute dedicated to this purpose, the Kazak Institute of Management, and the enactment of a new employment law which emphasizes job placement and retraining. Similarly, the promotion of ecologically sustainable development is also emerging as an important objective of government policy, and a wide range of environmental regulations has already been issued. Attempts to repair the severe environmental damage that has already occurred are hampered by a lack of financial resources, however, which has prompted the government to experiment with innovative means of mobilizing funds for some of the necessary work. In December 1993, for example, a state-owned oil company offered preferential treatment to a consortium of foreign companies in return for their commitment to conduct research on environmental protection in the regions under its authority.

Policies towards industry

In 1991 Kazakstan was the first republic of the former USSR to develop a privatization programme, which called for the divestment of all state-owned enterprises by 2000. With the state sector then accounting for approximately 90 per cent of fixed assets and 87 per cent of the labour force, the task appeared immense. Although it has been modified on several occasions in the intervening period, the programme has been successful, and now includes a mass-privatization component involving the distribution of vouchers by the government as well as the direct sale of some enterprises to foreign investors.

Attention is being paid to the development of private entrepreneurship, and has resulted in the adoption of a new constitution in January 1993, which established the legal basis for private ownership and paved the way for the elimination of most legal and institutional barriers to private-sector participation in trade and distribution. This was followed in June 1994 by the

announcement of a state programme to support entrepreneurial development, which aimed to ensure that 70 per cent of agricultural output, 40 per cent of industrial output and 90 per cent of services will be produced by the private sector by 1996. Recognizing the persistence of a wide range of legal, institutional and infrastructural constraints to the development of private entrepreneurship, the government has sought external assistance for the preparation of more comprehensive and better coordinated strategies and programmes for private-sector development.

The efforts to develop private entrepreneurial initiative need to be accompanied by a massive restructuring of the political and institutional framework to facilitate the transition from the previous Soviet economic system to a market-based economy. This process is making gradual progress: new institutions have been established in some fields and former institutions remain dominant in others. In some important fields, moreover, institutional responsibilities tend to overlap and are not clearly defined.

The financial support base for industrial development remains inadequate. Despite its dramatic expansion in the past few years, Kazakstan's banking sector remains highly undercapitalized and heavily dependent on the central bank for subsidized credit. Because of the weaknesses of the banking system, inter-enterprise arrears have become a major source of financing for state-owned enterprises, which have also been able to draw on subsidized credits from the state-owned banking system, often at negative real interest rates. The availability of these subsidized funds has perpetuated the inefficiencies of these firms while at the same time undermining the competitive position of private-sector enterprises, which do not enjoy this access to the state-owned banks and frequently cannot obtain credit from the weak private banking industry. This lack of access to bank finance by private firms constitutes a major constraint on the entry and growth of new private enterprises, and illustrates the need for the establishment of a private enterprise promotion body linked to a national development bank.

The government's budgetary constraints have resulted in a significant decline in public-sector investment, as a result of which the encouragement of inward foreign investment flows has become a major objective of government policy. The first round of legislation governing foreign direct investment was passed in December 1990, and opened up most sectors of Kazakstan's economy to such investment. This was followed in 1992 by the establishment of the National Agency for Foreign Investments (NAFI), which is responsible for screening and approving foreign direct investment. The latest step in this process was taken on January 20, 1995, when a new law on foreign investments was passed with the aim of clarifying the ambiguities of the earlier law of 1990. In addition, the government has sought to promote foreign investment by establishing five free economic zones where foreign investors can import equipment, material and other parts and components duty-free, and where companies are exempt from corporate taxes for between two and five years and are free of all other local taxes.

The government of Kazakstan does not yet have a specific policy or programme aimed at restructuring the republic's industrial enterprises. The general approach has been to let the private sector take the lead in the restructuring process, with the government playing a supporting role. To this end, the government is proceeding with the corporatization and privatization, and in some cases the segmentation, of state-owned enterprises. In order to ensure the proper implementation of enterprise-level restructuring, however, the government must provide an operating environment which encourages efficiency, competitiveness and financial responsibility. This includes the imposition of meaningful penalties for the non-payment or delayed payment of debts, the enforcement of bankruptcy legislation, and the cessation of the clearing of inter-enterprise arrears by the banking sector.

The manufacturing sector

The industrial and agricultural sectors have traditionally been of equal importance to the economy of Kazakstan, each accounting for 30-35 per cent of GDP. In recent years, however, fluctuations in agricultural production and changing price relativities have resulted in a dramatic increase in the share of industry in total output, from 21 per cent in 1990 to approximately 45 per cent in 1992-93. At the same time, however, the industrial sector has recorded a substantial output decline in absolute terms, so that its increased share in total output largely reflects a more rapid contraction of the other sectors.

The composition of Kazakstan's industrial output has also changed significantly in recent years, with the importance of the oil and gas processing industries having increased particularly rapidly. Within the manufacturing sector, the output shares of individual branches have fluctuated considerably in response to the complex interplay of such economic forces as shortages of domestic and imported inputs and the loss of domestic and external markets. Industries based on local inputs, such as textiles and food processing, became more important in the early 1990s as they had continued access to raw material supplies and enjoyed steady levels of demand, but the situation changed dramatically after 1992, when poor food and cotton harvests prompted a fall in output. By contrast, the machine building, metallurgical and chemical industries all suffered a decline due to input shortages in the early 1990s, but experienced an increase in their share of output in the following years even though their absolute production levels continued to fall in most cases.

Since the 1970s about 20 per cent of Kazakstan's labour force has been employed in the manufacturing sector, which has been the most important provider of employment opportunities after agriculture. The machine-building industry has traditionally been the largest source of manufacturing employment, although the building materials, food processing and non-ferrous metals industries have also been important employers. The labour force is immobile as a result of the tight controls imposed on the labour market during the Soviet era. Although most of these regulatory controls have been lifted, mobility will continue to be constrained in the foreseeable future by housing shortages and strict residency regulations.

Despite the high level of general education, the labour force lacks many of the management skills needed to restructure and reorganize the country's industrial enterprises, and hence to enable it to make the transition to a market economy. There is consequently an urgent need for instruction in basic international business concepts and practices and the use of new technologies. Knowledge of foreign languages is also very limited, and efforts must be made to increase the teaching of English and German in particular.

The measurement of labour productivity and enterprise profitability in the republics of the former USSR is extremely difficult because Soviet enterprises regarded the fulfilment of a production plan rather than attaining profit as their principal objective. The problem is exacerbated further by the fact that many important inputs, including energy, were highly subsidized, and that profitability, even if estimated, does not reflect profitability in a market environment. Similarly, the measurement of labour productivity is also fraught with difficulty since Soviet enterprises were highly integrated, often producing several completely unrelated products and generally providing a large number of ancillary activities such as day-care centres, medical clinics and fire brigades. In general, however, productivity in a typical Soviet-style enterprise is well below that found in a similar facility in the West, with high levels of overstaffing and less efficient plant layout and production methods.

At the end of 1990 approximately 90 per cent of the stock of fixed assets in Kazakstan was owned by the state, but extensive efforts at privatization have been launched since the country attained

independence in 1991. The dominance of state ownership ensured that investment was historically dominated by the state. The sharp decline in government revenue in recent years has consequently resulted in a serious decline in investment, and made the government aware of the critical need for foreign funds and technology in order to restructure the economy. It is therefore actively encouraging direct foreign investment, especially in the extractive industries, and has passed several laws awarding concessions and guarantees to foreign investors.

Manufacturing industry is concentrated in the northern cities of Kazakstan and in the southern city of Chimkent, which has an oil refinery. Atyrua, located in the west of the country on the Caspian coast and formerly known as Guryev, is also an important industrial city involved mainly in petroleum refining and the manufacture of plastics. Kazakstan's third refinery is located in the north-eastern city of Pavlodar, which is also a centre for the production of tractors and paper. Ust-Kamenogorsk is another important industrial city in a mineral extraction area in the north-east of the country, while the cities of Petropavlovsk and Aktyubinsk near the northern border with the Russian Federation are significant centres for the production of farm equipment. Akmola, formerly known as Tselinograd, is located more centrally and is the centre of the ceramics industry; it also produces pumps and agricultural machinery. The republic's second largest city, Karaganda, is a coal mining centre and a producer of metal goods and heating equipment. Almaty, the country's capital, also hosts a number of light industries such as textiles and engineering.

Like most republics of the former USSR, Kazakstan has experienced severe environmental degradation. Environmental management is being introduced in the republic and new legislation is being drawn up, which is expected to be introduced in the near future.

Kazakstan's imports of manufactured goods have traditionally consisted of machinery, metal products and light industrial goods, although imports of machinery, processed food and some light industrial products may decline in importance in the long term, as domestic production capacities are increased. Kazakstan's most important exports have historically been manufactured goods, including light industrial goods, metals and machinery, and chemicals. Despite the increased focus on the development of the oil and gas sectors, manufactured goods will continue to play an important role in Kazakstan's export trade as the efforts to add domestic value to the country's mineral resources gather pace.

Kazakstan is receiving large amounts of technical assistance from multilateral and bilateral donors. This is directed mainly into the areas of agriculture, environment and transport, however, with the amount of assistance offered in the areas of enterprise development, industry, the financial sector, energy and nuclear safety falling well short of government requests. The largest donors are the European Union (EU), the World Bank, the United Nations Development Programme (UNDP) and the European Bank for Reconstruction and Development (EBRD). Large bilateral donors include Germany, Turkey, the USA and the UK. UNIDO is participating actively in the provision of technical assistance, and several projects have been developed, of which the most important is a $1.2 million multi-agency project funded by the UNDP for the revitalization of several "company towns" in northern Kazakstan.

Industrial branch profiles

Kazakstan's strong agricultural base covering a wide variety of crops and livestock provides a firm basis for the development and growth of the country's food-processing and agro-related industries. Their performance during the past decade has been patchy, however, with modest growth in the late 1980s being replaced by stagnation and collapse since the early 1990s as a result of economic

dislocations and unfavourable weather. The rehabilitation and development of agro-industry, and in particular the processing of finished food products, is high on the reform agenda of the government of Kazakstan, which is seeking to establish an export potential for a wide range of finished products such as flour, feedstuffs, sausages, preserved meats and woollen goods to replace existing exports of raw grain, wool and unprocessed meat.

The principal constraints on the development of agro-industries are a shortage of processing facilities and packaging materials. These are reinforced by the political and legal ambiguities arising from the government's decision to keep agriculture and agro-processing activities outside the national privatization programme. As these constraints are overcome in the coming years, the food processing and other agro-related industries are likely to attract considerable investment interest because of their manageable start-up costs and high existing demand.

The outlook is particularly favourable for the tobacco processing industry. In order to reduce the country's traditional dependence on imports of cigarettes, the government has announced plans to increase domestic production. In 1993 the government sold the Almaty Tobacco Kombinat to the US firm Philip Morris, which has agreed to invest more than $200 million in modernizing the facility and raising its production from 12 billion to 20 billion cigarettes per year. Another US firm, R.J. Reynolds Tobacco International, is also investing in the tobacco industry and is building a plant with an annual capacity of 6 billion cigarettes, which is to be raised to 10 billion cigarettes.

The textile and clothing industries are the most important light industries in Kazakstan, and produce mainly woollen and cotton goods. Although the latest available data suggest that textiles accounted for almost 90 per cent of light industrial output in 1992, the absolute volume of production has contracted steadily since 1990 due to a decline in cotton production and shortages of other major inputs, such as chemicals, dyes and spare parts for machinery and equipment. Apart from these input shortages, the textile industry is also facing a lack of domestic retail outlets for its products, which is forcing clothing manufacturers to establish their own retail shops. Since Kazakstan has traditionally been a net importer of textiles and clothing, and with demand for these goods continuing to exceed supply, the medium-term outlook for these industries remains favourable.

Kazakstan's well-developed animal husbandry sector provides it with a strong resource base for hides and skins, the most important raw material for a successful footwear and leather goods industry. Despite these raw material resources, however, the country has not been a major producer of leather goods or footwear and the industry has suffered a sharp decline in production in recent years. There has been considerable foreign investment interest, however, especially in export-oriented production. Constraints nevertheless remain, including the need to improve the quality standards of locally processed raw materials and import higher-quality inputs where local materials are inadequate, and the necessity to develop design capability for the production of goods that can meet international tastes and fashion.

The petroleum and gas refining industry can draw on extensive deposits of crude oil and natural gas, as well as high-viscosity crude and bitumens, which contain vanadium, platinum, gold, rhenium, silver and hetero-organic compounds. Despite these reserves, however, Kazakstan only has a modest oil and gas refining industry, mainly because of the inter-republic specialization of production practised in the former USSR. As a result most of Kazakstan's oil production originates from deposits in the western regions of the country, which contain only one of its three oil refineries. The other two refineries are located in the east of the country, which has few producing fields of its own and is not connected by pipeline to the west.

Because of the lack of an internal pipeline, the bulk of Kazakstan's oil output is shipped to Russian refineries in the Urals and its eastern refineries receive their raw material supplies from Russian oilfields in Siberia. This great dependence on the Russian Federation has left Kazakstan's petroleum refining industry highly vulnerable to supply disruptions and price fluctuations, and all three refineries operated well below capacity in 1995. In order to overcome these difficulties, the government has announced plans for the construction of a pipeline linking the country's eastern and western regions. Efforts are also being made to develop alternative markets and attract Western investment interest in the oil and gas producing and processing industries.

Kazakstan's resources of hydrocarbons and phosphates have facilitated the emergence of a diversified chemical and petrochemical industry centred on the production of mineral fertilizers, sulphuric acid, artificial fibres and synthetic rubber. The industry, which accounted for 18 per cent of the country's exports at the time of its independence in 1991, has contracted significantly in subsequent years due to irregular raw material supplies and the loss of existing markets. Efforts are being made to revive the industry and to shift its emphasis from the production of bulk chemicals to the increased production of downstream products such as soap, shampoo, paint stripper, adhesives, fly spray, bleach and stain removers.

The availability of a variety of medicinal herbs and other pharmaceutical raw materials has enabled Kazakstan to develop a significant production capacity for intermediate pharmaceutical chemicals. In order to develop this industry, the government has recently established a new pharmaceutical combine, Kazfarmbioprom, in the town of Chimkent to produce branded medicines and take advantage of domestic raw materials. Its members include producers of pharmaceuticals, state farms, the medical materials department of a meat combine, a dairy factory, ginseng enterprises and a liquorice producer.

Kazakstan is endowed with abundant non-metallic minerals used in the production of construction materials, including limestone, quartz sand, clay, soda, asbestos, granite and marble. Despite this favourable raw material base, the construction materials industry has remained very small, largely as a result of the policies of inter-republic specialization pursued by the former USSR. The dissolution of the former USSR and the resulting collapse in inter-republic trade had a particularly severe impact on the availability of building materials and contributed to a sharp contraction of the construction sector. This prompted the government to give urgent priority to the development of the building materials industry, which has resulted in the establishment of a number of plants for the manufacture of clay bricks, prefabricated wall panels and sheet glass.

Although Kazakstan possesses vast deposits of a wide range of metallic ores and is a globally significant producer of copper, gold, lead, silver and zinc, its processing industries are limited because it was assigned the role of a producer of raw materials and semi-processed goods in the Soviet system of inter-republic specialization. The country's principal metallurgical processing facilities comprise an aluminium plant at Pavlodar, a copper smelter at Balkhashmed, an ore-dressing plant at Zhairem in the south-east of the country, a lead smelter at Ust-Kamenogorsk and a steel mill in the country's second largest city, Karaganda, which was the second largest steelworks in the former USSR and still accounts for 10 per cent of Kazakstan's GDP. The Ust-Kamenogorsk and Balkhashmed metallurgical combines also produce gold ingots.

High priority is being given to the development of the downstream metallurgical industries. New gold treatment plants have been commissioned at Ust-Kamenogorsk, Chimkent and Leninogorsk, with the additional output intended to provide the basis for an increase in the industrial use of gold and for the development of an export-oriented jewellery industry. Plans have also been drawn up to establish new facilities for the manufacture of finished products by the country's

ferrous and non-ferrous metallurgical industries, with special efforts being made to attract foreign capital and technology into these industries through the granting of management contracts to a number of foreign firms. In a particularly important development, the London-based Ispat International Steel Group has agreed to invest almost $1 billion in the Karaganda steel plant to rehabilitate and modernize its production facilities.

The limited development of the primary metal processing industries in Kazakstan has hindered the emergence of a domestic input supply network for its engineering industries. The development of these industries was also determined by the central planning authorities according to the principles of inter-republic specialization, as a result of which the country has emerged as a significant producer of tractors, bulldozers, excavators and agricultural machinery but is a major importer of most other forms of machinery and transport equipment. Since 1992 several foreign investors have expressed an interest in establishing automotive assembly plants for passenger cars, buses and trucks in Kazakstan, and a number of local enterprises have also begun to produce their own automotive spare parts in response to shortages from the Russian Federation and the other republics of the former USSR. The future development of the machine building and transport equipment industries will be constrained by the high cost of entry, however, and by the fact that the domestic manufacture of a number of complex and sophisticated engineering goods may not be economically feasible in view of the limited market and the existence of considerable expertise and production capacity in neighbouring countries.

Kazakstan has a large backlog of unfulfilled demand for consumer goods, which has remained strong despite the severe erosion of incomes resulting from the economic contraction experienced in the early stages of the transition process. Because the country historically produced almost no consumer goods itself, and was dependent on imports for the few items that were available, the government has promoted the production of consumer goods, both durables and non-durables, since the early stages of the reform programme. The range of locally manufactured consumer goods includes refrigerators, kitchen appliances, washing machines, juicers, vacuum cleaners, household radiators, sewing machines, personal stereos, CD players and watches. Efforts have also been made to convert military production to consumer goods: one such project involves the production of irons by a chemical fibre enterprise that had been supplying missile components. A particularly important development arising from this shift to the production of consumer goods has been the emergence of a small but thriving electronic components manufacturing industry with considerable potential for development.

CHAPTER TWO: THE KYRGYZ REPUBLIC

Recent economic trends

The territory comprising the Kyrgyz Republic was formally incorporated into the Russian Empire in 1876 and became a full union republic of the former USSR in 1936. The consolidation of Soviet power in the early 1920s caused the social and economic development of the region to evolve along Soviet lines, including the introduction of land reforms and the collectivization of agriculture. The process of industrialization began in the 1930s and was associated with the immigration of large numbers of Russian-speaking people, who continue to dominate the industrial workforce and play a large role in enterprise management to this day.

The Kyrgyz Republic has suffered a significant economic decline since the dissolution of the former USSR in 1991, which also caused a sharp reduction in the country's external trade as a result of the collapse of the inter-union trading system. The cessation of union transfers after 1991

resulted in a sharp increase in the budget deficit, which surged to 16.6 per cent of GDP in 1992 and prompted large expenditure cuts in the following years. The economic dislocations accompanying the dissolution of the USSR also caused a sharp rise in inflation, which only began to be curbed after the country withdrew from the rouble zone in May 1993 and adopted a stabilization programme supported by an IMF stand-by agreement and systemic transformation facility.

The economic structure

The Kyrgyz Republic is a small land-locked state in the eastern part of central Asia with a total area of only 198,500 square kilometres. The country contains three major mountain ranges, which give rise to significant climatic variations between the lowlands and the mountains. It has only one major city, the capital Bishkek, formerly known as Frunze, which is situated in the northern Chu valley near the border with Kazakstan and has a population of almost 630,000. Of the country's 4.2 million inhabitants, 62 per cent live in rural areas. In 1991 about 52 per cent of the population consisted of ethnic Kyrgyz, 21.5 per cent were Russians and 12.9 per cent were Uzbeks. Since 1991, however, there has been a significant emigration of Russians and other Slavic peoples.

In 1994 approximately 35 per cent of the Kyrgyz Republic's GDP was accounted for by agriculture, which employed almost 44 per cent of the country's labour force. Since only about 7 per cent of the country's land is arable, livestock rearing has traditionally been the most important agricultural activity. The main crops cultivated are grain, potatoes and other vegetables, fruit, cotton and tobacco. In recent years, agricultural production has been seriously affected by shortages of fuel and adverse weather, resulting in the need for food aid from the United Nations and concessional grain shipments from the USA in 1994.

The Kyrgyz Republic has substantial deposits of coal, tin, zinc, mercury, tungsten, antimony, molybdenum and uranium, and is also thought to possess the world's seventh largest reserves of gold. It does not have significant oil or natural gas reserves, however, and meets its energy needs from imports of these fuels, its coal resources and hydroelectric power generated by its many rivers. A major objective of the government is to expand the country's gold production as rapidly as possible, and considerable efforts have been made over the past few years to attract foreign investment for it.

The industrial sector was built up during the Soviet period and most manufacturing enterprises were closely integrated into the production system of the former USSR. Their output range is limited, and is concentrated on the production of processed food, textiles, automotive components, some kinds of agricultural machinery, machine tools and consumer electronics products. Several of the country's manufacturing enterprises also served defence-related purposes, and have been severely disrupted by the collapse in demand for their products following the dissolution of the former USSR.

Transport and communications are very limited. Although the Kyrgyz Republic has the highest road density of the central Asian republics, it has a very sparse railway network. Its domestic and international air links have been cut since the early 1990s due to a shortage of jet fuel which has caused the closure of the airport in Bishkek. The telecommunications system is extremely patchy. In 1991 the Kyrgyz Republic had only 5.6 telephone lines per 100 persons, the second lowest density in the former USSR (after Tajikistan with 4.9 lines per 100 persons). Considerable efforts are being made to improve the existing telecommunications network and loans have been obtained from external sources for this purpose.

The banking system is dominated by the National Bank of Kyrgyzstan (NBK), which was formed from the local branch of Gosbank in December 1991, and three major commercial banks with a large branch network, which were established at the same time from the local branches of the former specialized union banks. The Kyrgyz Republic also has a savings bank and 13 newly established but small private banks, including two foreign joint-venture banks. Foreign banks may open branches in the Kyrgyz Republic with the permission of the Ministry of Foreign Affairs.

Although tourism, trade and services have not been important sectors of the economy in the past, the country is actively promoting the development of its tourism resources, which include several spas dispensing mineral waters, some of the highest mountains in the world outside the Himalayas and Pamirs, more than 2,000 mountain lakes, 16 state game reserves and four national parks. The development of the industry is constrained by the lack of a resort infrastructure, however, in the absence of which the country hopes to attract "wilderness" holidaymakers and develop other non-capital-intensive forms of tourism.

The demand structure of GDP is dominated by consumption, which has accounted for approximately 70-80 per cent of GDP during the past decade. External trade has also played an important role in the Kyrgyz Republic, which traditionally depended heavily on trade flows to and from the other republics of the former USSR because of its high level of specialization in production and the small size of the domestic market. These flows have been very disrupted by the collapse of the inter-republic payments system following the dissolution of the USSR, however, and have only been partially offset by increased trade with countries beyond the borders of the former USSR.

The macroeconomic policy environment

Since 1991 the Kyrgyz Republic has adopted macroeconomic reforms similar to those introduced in the other republics of the former USSR. The process of price liberalization was initiated in 1991 and its scope was broadened in 1992, following which the pace of the reform programme accelerated further with the introduction of a privatization programme, tentative steps towards a restructuring of state-owned enterprises, and a significant reduction in the scope of the state order system. In 1993 the Kyrgyz Republic negotiated a stand-by agreement with the IMF, which called for the adoption of an economic stabilization programme designed to reduce the budget deficit and control the growth of the money supply. The success of this programme, which was followed by the launch of a new structural adjustment programme in June 1994, resulted in the granting of an enhanced structural adjustment facility worth more than SDR88 million in December 1995.

The foreign trade of the Kyrgyz Republic continued to be controlled by the government until 1994, although a number of important trade policy reforms began to be initiated from mid-1993 onwards. Following this liberalization process, the government's trade policy is geared mainly towards increasing the country's export capacity, particularly with regard to its mineral resources. In this context it is seeking to re-establish its erstwhile trade links with the republics of the former USSR and to penetrate new markets.

The government has taken measures to overcome the balance-of-payments disequilibrium caused by the disruption of its trade flows after the dissolution of the USSR. In 1992, the country transferred its share of the debt of the former USSR to the Russian Federation in exchange for relinquishing its claims on the assets of the former USSR. By 1993, however, it had to convert its previous rouble credit lines and correspondent balances with the Russian Federation, Kazakstan and Uzbekistan into SDR or dollar-denominated debt equivalent to $168 million. With further external borrowing in 1993 and 1994, the Kyrgyz Republic's external debt had risen to more than $365 million, equivalent to about 22 per cent of GDP, by mid-1995, resulting in a cautionary

recommendation from the IMF that no further borrowing should be undertaken, except at concessional terms, until 1998.

In a particularly important policy decision, the Kyrgyz Republic withdrew from the rouble zone in May 1993 and issued its own currency, the som, supported by a stand-by agreement with the IMF. At the first currency auction, the som traded at Som4:$1, but during the first two months of trading it fell to Som4.30:$1 on the exchange and to Som7:$1 on the black market. By February 1994 the exchange rate had fallen further to Som9.50:$1, but it subsequently stabilized at Som10-12:$1.

Official policies towards human resource development have been largely limited to meeting the needs of the agricultural sector and certain industrial enterprises, particularly at the shop-floor level. There has been little development of technological capability for adaptation and innovation. Despite the high level of general education, the country's population consequently lacks many of the skills required for the transition from a command to a market-based economy. Aware of this shortfall, the government has requested and received several technical cooperation grants specifically for training and education purposes.

The environmental regulations prevailing in the Kyrgyz Republic have been inherited from the former USSR. Though strict by international standards, they were largely unenforced and seldom adhered to. A State Committee on Environmental Protection (Goskompriroda) has been established to formulate new environmental protection measures for the republic.

Policies towards industry

The government launched a privatization programme at the end of 1991 through the adoption of a new law to promote the development of entrepreneurship, the strengthening of private property rights and the restriction of monopolistic activities and unfair competition. This programme provided for the privatization of small and medium-sized enterprises through competitive bidding, including auctions, and the privatization of large enterprises through the leasing of state property to private entities, the creation of holding companies owned by workers and the public flotation of the shares of these enterprises. By the end of 1993 it was acknowledged to be running behind schedule and was consequently supplemented in early 1994 by a new mass privatization programme. This has been fairly successful, and by mid-1995 the privatization of small-scale retail and trade enterprises had been largely completed. The privatization of medium-sized and large enterprises has been hampered by a variety of problems, however, including a lack of resources and interest on the part of potential purchasers and inadequate information about the privatization process.

The initiation of the privatization programme in 1991 was accompanied by measures to promote the development of private entrepreneurship. These include the establishment of a legal framework for the entrepreneurial activity, and a clarification of the kind of state support that may be provided for such activity. Specific measures have been taken to provide an appropriate institutional framework and develop a financial support structure for industrial development. Efforts have been made to promote foreign direct investment through the enactment of a comparatively liberal foreign investment law in June 1991, which has been supplemented by a presidential decree issued in September 1994 guaranteeing foreign investors the right to repatriate capital and profits. Foreign investment flows have nevertheless remained modest because of restrictions on land ownership and the complex administrative procedures for approving investment applications.

As elsewhere in the former USSR, the industrial sector of the Kyrgyz Republic is in urgent need of a comprehensive programme of enterprise restructuring. Most of the existing industrial enterprises are marked by strong vertical integration and operate on a scale significantly in excess of local demand. As a result of the collapse of inter-republic trade, the contraction of domestic demand and the decline of defence-related industries, a substantial number of these predominantly state-owned medium-sized and large enterprises are operating well below capacity, especially in the metalworking and machinery industries. The revitalization of these enterprises will require their conversion from the production of heavy machinery and defence equipment to the manufacture of consumer goods and high-technology products and measures to reduce their dependence on external suppliers and markets.

The implementation of the enterprise restructuring programme has proceeded slowly and has been hampered by several constraints including the slow pace of privatization, the diffusion of ownership and decision-making power that has emerged following independence, and the frequent lack of appropriate administrative and financial resources in the decision-making institutions. In order to speed up the enterprise restructuring programme, the government established the Enterprise Reform and Resolution Agency in mid-1994 as a temporary body to centralize the restructuring of the largest loss-making state-owned enterprises. The agency is directly responsible to the Office of the President and has wide-ranging powers to close down, restructure and/or liquidate the approximately 30 enterprises under its authority.

The manufacturing sector

The manufacturing industry of the Kyrgyz Republic was developed between the 1930s and the 1960s by Russian-speaking immigrants as part of the overall industrial base of the former USSR. The industrial plants established in the republic often formed part of large multi-republic enterprises, and were frequently intended to take advantage of the republic's mineral base for military purposes. Of the 60 products classified as "important" by the central authorities, the Kyrgyz Republic produced only 14: electric motors; machines and equipment required by the livestock farming and animal fodder producing industries; soft roofing and insulating materials; window glass; cotton fibres; woollen fabrics; linen and hemp fabrics; silk fabrics; textiles; shoes; radio receivers; refrigerators; bicycles; and meat.

The industrial sector continues to be dominated by Russian and Ukrainian immigrants, who accounted for approximately 75 per cent of the industrial labour force in 1992. As elsewhere in the former USSR, the industrial labour force lacks the business and management skills to operate in a market environment. The problem is aggravated by the emigration of the country's Russian-speaking managerial and bureaucratic class because of the weakening economy and the growth of what it perceives to be an anti-Russian attitude. In order to stem this outflow the government announced in February 1994 that it would temporarily recognize dual citizenship, as well as provide more protection for the Russian language, an increased representation of Russians in government and public funds to assist the establishment of Russian-Kyrgyz joint ventures.

Almost all of the Kyrgyz Republic's industrial enterprises were owned by the state until the country attained independence in 1991 and launched its privatization programme. Since that time a substantial proportion of small-scale and medium-scale enterprises have been transferred to private ownership, although most of the large industrial enterprises remain in the hands of the state. They tend for the most part to be unprofitable, and many have been put under a care and maintenance programme administered by the Enterprise Reform and Resolution Agency, which is intended to assess their viability and lead to their restructuring, privatization or liquidation by 1998.

Industrial investment has historically been dominated by the government, and fell sharply in the 1970s and 1980s as increased attention began to be paid to the development of the Siberian region. This, in turn, led to a further decline in the already low levels of labour productivity prevailing in the industrial sector. However, the pattern of investment has already begun to shift as a result of the economic and political changes taking place in the Kyrgyz Republic with private domestic and foreign investment accounting for an increasing share of total investment activity.

The geographical distribution of the manufacturing industry is highly concentrated, with about 75 per cent of all manufacturing enterprises located in or near the capital of Bishkek. The only other significant manufacturing centre is the country's second largest city of Osh, near the western border with Uzbekistan. This high concentration of industry implies that the problems of industrial pollution are also limited largely to these major manufacturing centres, although some mining and mineral processing centres face problems with the disposal of industrial waste. The situation is particularly serious at the Uhzpolymetal facility in the Kara Balta region, where uranium tailings have been dumped in uncovered slagheaps and have given rise to high levels of radioactive dust near the plant.

The Kyrgyz Republic's trade in manufactured goods has centred on the export of machinery and metal products, although refined sugar and textiles have also been important exports. The country's industrial imports, meanwhile, have been dominated by chemicals and petroleum products, machinery, light industrial goods (especially consumer goods) and processed foods. In line with the government's new emphasis on the development of the country's mineral resources, the overall importance of manufactured exports may decline to some extent in the near term as raw material exports begin to rise. In the medium term, however, this trend will begin to be reversed as the export of processed and semi-processed mineral products increases.

Foreign technical assistance for the manufacturing sector has been limited, with most of it focused in the fields of education and training, governance and democratization, institution-building and transport. UNIDO has completed one project in the Kyrgyz Republic involving the provision of technical assistance to the Research Institute of Scientific and Technical Information and linking the institution to the UNIDO Industrial and Technological Information Bank and other international databases. Another UNIDO project is in progress, aimed at strengthening the capacity of government experts in the Kyrgyz Republic to identify and promote investment opportunities in a market-based economy.

Industrial branch profiles

The development of food processing and agro-industries has been hampered by the limited availability of agricultural land, although a substantial sugar refining industry based on imported raw materials was established during the Soviet period. Since independence this industry has been disrupted due to the loss of raw material supplies and export markets, and many of the other food processing enterprises have been affected by the decline in agricultural production caused by bad weather and shortages of fuel and spare parts. Since the country remains dependent on imports for a substantial proportion of its food requirements, however, shortages of foreign exchange have forced the government to pay increased attention to domestic food production, and since 1992 a number of existing industrial enterprises have been encouraged to invest in food processing activities. Despite this increased interest, the industry's development will continue to be hindered in the foreseeable future by the limited availability of produce and a shortage of investment funds.

In contrast to most other agriculturally-based industries, the tobacco processing industry has performed well in the recent past, and has attracted considerable foreign investment. A

particularly important development in this context was the signing of an agreement with the UK firm British American Tobacco providing for an investment of $50 million in a joint venture to develop tobacco production and processing. Although the overall prospects for the development of the tobacco industry thus appear favourable, the shortage of cigarette paper, filters and packaging materials, which forced the Bishkek Tobacco Works to sell its tobacco in bulk rather than produce cigarettes in 1992, will remain a major constraint, as the country has no facilities for producing these domestically and lacks the hard currency to import them.

The Kyrgyz Republic is the second largest producer of wool in the central Asian region, and also produces some cotton and raw silk, albeit with low yields and of poor quality. The country's light industry has consequently long been dominated by the production of textiles and clothing for domestic use and for export to the other republics of the former USSR. The government is actively seeking to build on this existing foundation, in particular to promote the entry of small and medium-scale enterprises into the textile and garment industries. Their development will continue to be constrained by the comparatively low quality of their output, unless substantial resources are invested in upgrading equipment and technology to meet international quality standards.

Animal husbandry constitutes one of the country's main economic activities, and there is a strong resource base for the development of the leather products industry. The industry recorded a steady increase in output during the 1980s, but suffered a sharp decline in 1992. In recent years foreign investment interest in the leather processing industry has been high, with much of it directed towards production for export markets. Although this foreign investment interest augurs well for the industry, care will have to be taken to ensure that the raw material base is exploited in a sustainable manner and that the livestock population is not reduced too dramatically.

The Kyrgyz Republic possesses large deposits of a variety of non-metallic minerals that provide a strong resource base for the expansion of its building materials industry. After growing steadily throughout the 1980s, the industry suffered a sharp decline in the early 1990s as a result of the fall in investment activity and the consequent collapse of the construction industry. While efforts have been made to revive the industry, *inter alia*, through the signing of an agreement in 1993 for the transfer of Russian concrete block technology to the country, its development continues to be constrained by a shortage of investment capital and the lack of suitable packaging materials.

The availability of a wide variety of both ferrous and non-ferrous ores provides the Kyrgyz Republic with a strong resource base for the development of a diversified metallurgical industry. Although most of these resources have yet to be exploited, some important mining and mineral processing industries have been established, and the Kyrgyz Republic has a significant production capacity for mercury, antimony and uranium. The government has targeted the sector for further investment and development and has launched a concerted effort to attract foreign investors. Although particularly high priority is being given to the production and refining of gold, of which the Kyrgyz Republic is the seventh largest producer in the world, efforts are also being made to establish a tin industry and a facility for the production of semiconductor materials such as trichloridesilan, polycrystal silicon and quartz crucibles. In addition, the government wants to maximize the value added to its mineral resources, and in this context is attempting to promote the development of export-oriented gold and silver jewellery industries.

Although the Kyrgyz Republic has no specific resource-based advantages for the production of machinery and transport equipment, it was selected as a location for the production of some types of machinery for the entire former USSR in line with the policy of inter-republic specialization of the Soviet period. The requirements of the military also played an important determining role in the siting of engineering industries in the Kyrgyz Republic, with much of the output of the country's heavy electrical machinery industry being specifically designed to support the defence

industry of the former USSR. The loss of its traditional markets in the former USSR has thus had a serious effect on this sector and has resulted in a sharp drop in production. For most products it will be some time before demand recovers or new markets can be found, and for the producers of these goods the only hope for survival will lie in a shift to production of goods for which demand does exist, including a wide range of consumer goods.

Several enterprises have already begun to make this transition to the production of consumer goods, of which previously only refrigerators had been manufactured on a significant scale. This trend is exemplified by the Frunze agricultural engineering enterprise in Bishkek, which has converted much of its production from agricultural machinery to durable consumer goods, including washing machines and electrical heating equipment. A wide-ranging conversion programme of this kind will require considerable investment in restructuring existing production systems, retooling plant and equipment and retraining staff in order to enable them to optimize the use of their capital and human resources in new activities. Despite these constraints, the government has been forced by foreign exchange constraints and the breakdown of the inter-republic trade system to initiate a crash programme to promote the domestic production of 250 priority consumer goods and to encourage the entry of small and medium-scale enterprises into the industry. The success of this programme has been limited, however, and official data suggest that the production of refrigerators, video recorders and microwave ovens stopped completely in 1993 and the production of household goods was cut by 25 per cent.

CHAPTER THREE: TAJIKISTAN

Recent economic trends

Tajikistan acquired its present boundaries in October 1929, when it became a full union republic within the former USSR. During the period of Soviet rule Tajikistan's economy was gradually transformed from being strictly rural and nomadic to being based on mechanized agriculture and the primary processing of raw materials. Despite large volumes of investment and union transfers, however, the income per head of the republic remained low, at some 55 per cent of the average for the former USSR as a whole. In addition, the economy of Tajikistan remained self-contained, with only about 42 per cent of its NMP accounted for by inter-republic exports. By contrast, many of the USSR's other constituent republics were dependent on the broader union market for up to 90 per cent of their output.

Economic conditions have deteriorated considerably since 1991 as a result of the loss of union transfers and the disruption to trade caused by the dissolution of the USSR. The situation has been exacerbated by the outbreak of a civil war in 1992, which has persisted to the present and has caused intense human suffering and severe infrastructural damage. The resulting drop in output gave rise to large budget deficits as the government raised subsidies and wages in an attempt to maintain living standards. This lack of fiscal discipline generated strong inflationary pressures, which were reinforced by a wide-ranging liberalization of administered prices in the early 1990s and by external effects resulting from the government's decision to remain in the rouble zone.

The erosion of its traditional trading links, together with the effects of the civil war, have resulted in the collapse of foreign trade. This overall decline in external trade has been accompanied by a significant shift in the direction of trade, marked in particular by a sharp rise in the share of the country's exports to countries beyond the borders of the former USSR. Although the share of imports from within the former USSR has also declined, the latest available data show that it

continues to exceed the share of imports from other suppliers, reflecting the country's lack of hard currency.

The economic structure

Tajikistan is located in the south-east of central Asia and covers an area of 143,100 square kilometres. Its terrain is mostly mountainous, with more than 50 per cent of its territory lying at elevations of more than 3,000 metres and less than 7 per cent being arable. Because of the differences in altitude, the climate varies considerably across the country, although all parts experience extreme seasonal differences in temperature and low levels of rainfall.

The population of Tajikistan was estimated at 5.4 million in 1991, equivalent to 0.6 per cent of that of the former USSR. The population has been growing rapidly, however; the growth rate is about 3 per cent, the highest of all republics of the former USSR. Ethnic Tajiks constitute the majority of the population, and Uzbeks form the most important minority group. Other significant minorities include Russians, Kyrgyz, Ukrainians, Germans, Turkmen, Tatars and Koreans. Large numbers of ethnic Russians, Russian Jews and Germans are believed to have left Tajikistan in recent years, resulting in severe shortages of qualified personnel in industry, healthcare and government administration.

Tajikistan is predominantly rural, with 70 per cent of the population living in the countryside and concentrated in the valley regions of the north, of which the Fergana Valley is the most important, and the south-west. Dushanbe, the country's capital, is the largest city with a population of 600,000. The second largest city is Khojand with 163,000 people.

The economy of Tajikistan is dominated by the agricultural sector, which is highly irrigated and mechanized because of the mountainous terrain and limited supplies of arable land. This has resulted in the achievement of yields well in excess of those recorded in neighbouring countries, although they still fall below those achieved in the West. The country's main crops include cotton, grain, tobacco and horticultural products, although animal husbandry is also important. The sector has suffered a sharp fall in output in recent years, however, as a result of unfavourable climatic conditions and the economic dislocations caused by the dissolution of the USSR and the civil war.

Mining is an important activity since the country has more than 30 important gold deposits and significant deposits of lead, mercury, zinc, silver and a number of rare elements such as uranium, radium, arsenic and bismuth. Before 1991 all minerals mined in Tajikistan were exported in the form of concentrates to neighbouring republics for processing, but the government is seeking to promote the expansion of domestic processing capacity in order to add domestic value to the country's mineral exports. No significant deposits of oil or gas have been discovered in Tajikistan yet, even though the country contains two major hydrocarbon basins, the Fergana Basin and the Afghan-Tajik Depression. The potential for developing the resources of these basins is regarded as questionable, since they will require the drilling of deep wells at considerable cost. In the absence of any significant oil and gas production, Tajikistan's principal source of primary energy is hydroelectric power, which accounted for 36 per cent of the country's primary energy needs in 1990 and is capable of considerable further development.

Manufacturing industry makes a significant contribution to the economy of Tajikistan in terms of both output and employment. Industrial production is dominated by light manufacturing, the most important branch of which is the textile industry comprising textile mills, cotton cleaning mills, silk factories and garment manufacturing. In 1990 the industrial sector consisted of 373 state-owned enterprises, although the bulk of the country's industrial output was accounted for by a small number of large enterprises, such as the Regar aluminium plant to the west of the capital

Dushanbe, and several other metal-working and machine-building plants. The country is also the region's largest producer of refrigerators, washing machines and freezers. Other important activities include tanning, the manufacture of leather goods and carpet weaving.

Tajikistan's transport and communications infrastructure is limited. The condition of most of the country's roads is not good and the fleet of trucks and buses is nearing the end of its serviceable life. The railway system is limited to two single-track lines with a total length of 418 kilometres, one of which connects Dushanbe and the agricultural region in the south-west of the country with southern Uzbekistan and the other links the Khojand area in northern Tajikistan with Tashkent. In addition, the country has two seldom-used narrow gauge rail lines. Air transport is well developed, and the country has four main airports, of which the two largest in Dushanbe and Khojand can accommodate international traffic except for large wide-bodied jets.

The telecommunications system in Tajikistan was the least developed of all the republics of the former USSR and employs technology from the 1940s and 1950s. This obsolescent technology, combined with the damage inflicted by the civil war and natural disasters, has left the system in a state of near collapse. Efforts to improve services and link the republic with international satellites have already begun, and a 60-channel satellite earth station and digital exchange to connect 2,500 local customers is being installed in Dushanbe.

The banking sector is supervised by the National Bank of Tajikistan (NBT), established in February 1991 from the local branch of Gosbank, and also comprises a number of commercial banks, the most important of which were formed through the conversion of the former specialized state-owned banks of the Soviet era. Hardly any other reform has taken place in the banking industry, and the NBT has been granted little real independence by the government. It acts largely as an intermediary for the disbursement of credits allocated on the basis of past central funding procedures and regulations, and interest rates remain subject to government control. The industry's problems are exacerbated by the erosion of its skill base as a result of the exodus of Russian-speaking professionals from the country.

Tourism has not played an important role in Tajikistan to date even though the country possesses some of the world's most beautiful scenery. There are abundant mountain lakes, rivers and wildlife on which an "eco-tourism" industry could be developed.

Trade and other services have not played a significant role in the economy of Tajikistan. The share of wholesale trade in NMP fluctuated around 4 per cent throughout the 1980s and accounted for less than 10 per cent in 1992. Services, meanwhile, accounted for less than 8 per cent. As the country progresses with its transition to a market-oriented economy, the contribution of both the trade and services sectors to the economy will rise.

Private consumption has traditionally been the main source of demand in Tajikistan and accounted for 84 per cent of NMP in 1990. Demand fell sharply in the early 1990s as a result of the economic dislocations associated with the dissolution of the former USSR and the subsequent civil war. The impact of these developments is believed to have been particularly severe on investment, with public investment being curtailed by the loss of union transfers and private investment by the political uncertainty generated by the civil war.

As a result of the policy of inter-republic specialization pursued in the former USSR, Tajikistan has historically been dependent on imports for a wide range of food and industrial products as well as oil and oil-related products. Virtually all of the country's external trade was conducted with other republics of the USSR and the range of its exports was very narrow, consisting mainly of

such products as aluminium, cotton, textiles, tobacco, fruits and vegetables, and leather products. Its imports, by contrast, consisted of a wide range of capital goods, energy products, intermediate and consumer goods, and food products. These patterns have begun to change in recent years, especially as a result of efforts to develop new markets beyond the boundaries of the former USSR.

The macroeconomic policy environment

Tajikistan's agenda for transformation to a market economy was first established in December 1990 when the Council of Ministers approved a programme for economic stabilization and transition to a market economy. This was followed by the introduction of some new laws and measures in subsequent years, but the reform process nevertheless made slow progress in the early years due to political instability, the civil war and the lack of qualified personnel to formulate and implement the reform measures. It was not until 1995, when a degree of political stability had been restored, that the government was able to turn its attention again to the task of economic stabilization and reform.

To some extent the government's hand was also forced by a financial crisis in the second half of 1994 following the failure of the Russian Federation to provide Tajikistan with a sufficient quantity of roubles, which had remained the country's legal tender. Faced with a severe shortage of cash, the government resolved to introduce its own currency, the Tajik rouble, and sought the assistance of the IMF for this undertaking. In return for this support the government introduced a package of IMF-recommended reforms, which resulted in the granting of a $22 million loan by the Fund in May 1996.

The government of Tajikistan has traditionally pursued an expansionary fiscal policy as a result of which the republic has consistently run large public-sector deficits, which were financed by union transfers until 1991. Even after the cessation of such transfers little adjustment was made to social expenditure, with the bulk of the belt-tightening that did take place being directed at capital expenditure. Although some fiscal reforms were introduced in 1992, they took some time to take effect and budget deficits equivalent to 37 per cent of GDP and 25 per cent of GDP continued to be recorded in 1992 and 1993 respectively. Some progress was achieved the following years, with the ratio of the budget deficit to GDP being reduced to 10 per cent in 1994 and an estimated 7 per cent in 1995. The budget for 1996 aims to reduce this ratio further to 6 per cent in line with the government's commitments to the IMF.

The government of Tajikistan initially sought to keep the country in the rouble zone, and signed an agreement in principle on the establishment of a monetary union with the Russian Federation in September 1993. This link with the rouble prevented the government from pursuing an independent monetary policy, which continued to be determined by the monetary authorities of the Russian Federation until Tajikistan issued its own currency, the Tajik rouble, in May 1995 in the wake of the 1994 cash crisis. Since the introduction of the Tajik rouble the government has sought to curb monetary expansion by setting targets for the growth of the money supply, raising the benchmark interest rate to 250 per cent, and restraining the issuance of bank credits to the industrial and agricultural sectors.

The introduction of the Tajik rouble in May 1995 imposed upon the monetary authorities the need to make conscious foreign exchange policy decisions, which was complicated by the fact that the new currency did not initially have international backing and received little local market support. The delays in concluding a support agreement with the IMF further eroded public confidence in the currency, causing its exchange rate to fall from TR140:$1 at the time of its introduction to TR300:$1 by September 1995. Faced with this rapid depreciation, the National Bank of Tajikistan

suspended the currency auctions that had accompanied the introduction of the Tajik rouble, thereby inhibiting the development of a credible foreign exchange market.

In the first years after the dissolution of the former USSR the government of Tajikistan regarded the maintenance of the country's traditional trading links with the other republics of the former USSR as the primary objective of its trade policy. In 1993, when it recognised the inevitability of the erosion of these links, the government began to place increased emphasis on the achievement of a high degree of self-sufficiency in a broad range of essential products, including foods, fuels and a number of other basic commodities. The importance of increased export diversification became evident in 1992-93 when the world market price for both cotton and aluminium declined sharply, and the government is giving priority to the exploitation of the country's natural resources, including gold and other minerals, for export. In order to diversify its suppliers and markets, moreover, Tajikistan has entered into trade agreements with countries from within and beyond the former USSR, and has joined several international trade organizations.

Considerable efforts have been made with regard to human resource development, and have resulted in high levels of basic education and the achievement of an almost universal literacy rate. Despite the adequate availability of basic education, Tajikistan suffers from a lack of vocational, technical and managerial training facilities. To meet the needs of the economic reform and structural transformation process currently under way, training efforts will need to be substantially expanded not only in terms of the numbers of people served, but also in the areas of training provided. The need for training will be particularly high in such new fields as market economics, customer service, quality control, cost accounting and financial management.

Like the other republics of the former USSR, Tajikistan has inherited environmental legislation enacted under the centralized Soviet system, which established tight environmental controls and high standards for environmental protection, although most of these controls and standards have not been adequately implemented or monitored. The post-independence government of Tajikistan has not adopted or developed any new environmental policies.

Policies towards industry

The privatization programme was launched in February 1991, and provides for the disposal of all state assets except land and mineral resources, utilities, defence and communications industries, and healthcare facilities. The programme also stipulates the various eligible forms of privatization, but offers preferential terms for privatization schemes involving labour collectives. Although ambitious annual targets were set for the privatization programme, and new measures to accelerate the implementation of the programme were introduced in November 1993, little has been achieved as other urgent economic priorities have diverted the government's attention. To the extent that any privatization has taken place it has involved the granting of leases, sometimes with future purchase options, to the employees of the enterprise concerned. Significantly, there has been almost no interest from foreign investors in the privatization programme.

Little has been done to establish an effective financial support structure for industrial development. The process of banking reform has not progressed very far and the level and quality of services provided by the banking sector are inadequate to support the development of a private sector or to serve a market-oriented economy. The situation has been exacerbated by the exodus of trained Russian staff, which has affected the regulatory ability of the NBT as well as the ability of the commercial banks to manage their operations.

In view of the prevailing domestic capital constraints, the government has been keen to promote foreign direct investment, especially in the mining, hydroelectric power, agribusiness, textile and mining equipment industries. Although the existing legislation enacted in 1992 permits foreign investors to form wholly-owned subsidiaries, the government encourages the formation of joint ventures with local partners in which the foreign share is restricted to a maximum of 49 per cent of the equity. Foreign companies are expected to provide their equity in the form of a cash contribution, while the share of the local partner is expected, in general, to be contributed through physical facilities.

With little new capital investment or technological change, there has been very little change in the scale and structure of industrial enterprises. Policy measures and institutional reforms introduced by the government since 1991 have had little effect in stimulating Tajikistan's transition to a market-oriented form of economic and industrial development. Largely due to the pressures generated by the civil war, little attention has been given to the restructuring of state-owned enterprises or industries on more competitive lines. These enterprises continue to operate much as before, although with greater uncertainty and dislocation.

The manufacturing sector

The industrialization process began in the 1930s in Tajikistan, primarily through the immigration of Russian-speaking Slavs. By the 1970s, however, investment activity had begun to be diverted from the central Asian region to western Siberia, where interest was focused on the development of the region's oil resources. This inevitably resulted in a slowdown in economic and industrial growth in Tajikistan in the latter half of the 1970s and the 1980s.

Throughout the Soviet period the geographical distribution of investment, industrialization and agricultural mechanization was focused disproportionately on the northern part of the republic. The industrialization process was based primarily on the exploitation of local resources and the production of raw, semi-processed or intermediate goods for the USSR market. Tajikistan was selected as the site of one of the world's largest aluminium smelters, at Regar, which uses domestic hydroelectric power to process imported alumina. Other manufacturing activities, the most important of which include metallurgy, machine building, light industry and food processing, play only a relatively minor role in comparison to the Regar plant.

Before 1990 the industrial labour force grew at a fairly even, albeit modest, rate. Since 1990, however, employment levels have dropped, largely as a result of the emigration of part of the Russian-speaking workforce. With the industrial sector having been dominated by Russian speakers, the number of ethnic Tajiks employed in the sector as a proportion of all working ethnic Tajiks is very low. This has also restrained the emergence of a pool of ethnic Tajiks with the relevant industrial and managerial skills; such a pool will have to be developed rapidly to replace the loss of skills associated with the large-scale emigration of Tajikistan's Russian-speaking population following the dissolution of the USSR.

Although few reliable data are available on enterprise profitability and labour productivity in Tajikistan's manufacturing sector, all the available evidence suggests that both have been low. Labour productivity in particular is estimated to have been the lowest among the states of the central Asian region, with the NMP per head produced by persons employed in the material sector amounted to only 60 per cent of the average for the former USSR as a whole in 1985. By 1989 that figure had dropped further to just 46 per cent.

Industrial ownership has historically been dominated by the state, and the privatization programme has made little progress even though it has been an official priority of the government since the

early 1990s. The emergence of budgetary constraints in the post-independence period has also resulted in a sharp decline in public capital spending, which had previously been the almost exclusive source of industrial investment. Attempts to replace these funds with increased private, including foreign, investment have had only limited success due to the continued political uncertainties prevailing in the country, although several joint ventures with foreign companies have been agreed in the textile and mining and mineral processing industries.

The bulk of the manufacturing industry is concentrated in the north of the country around the city of Khojand, which attracted most of the state investment undertaken during the Soviet period. The existence of this industrial infrastructure has also prompted most of the private investment undertaken since 1991 to be concentrated in this region.

As a result of the country's low level of industrialization and the high geographical concentration of its industry, the country's industrial pollution problems tend to be localized. The most serious of these problems are associated with the Regar aluminium smelter and the chemicals industry, which have generated high levels of air and water pollution, which are sufficient to represent serious health hazards to the local population.

As a result of the specialized nature of its industrial development, Tajikistan is highly dependent on international trade both to meet its needs for manufactured products and to market its own industrial output. Thus, the country imports the vast majority of its manufactured goods, from chemicals to processed foods, which were traditionally obtained from the other republics of the former USSR and accounted for the bulk of the country's total imports. Similarly, manufactured goods also constitute the bulk of Tajikistan's exports, consistently accounting for more than 90 per cent of the country's inter-republic exports and almost all of its extra-republic exports in 1990-92. The most important of these exports are aluminium, refrigerators and freezers, and textiles and garments.

The civil war has inhibited the granting of technical assistance to Tajikistan by many multilateral and bilateral donors. Most of the assistance that has been requested and received has been in non-industrial fields, including institution-building and democratization, the financial sector, energy and nuclear safety and economic cooperation. UNIDO has received two requests from Tajikistan for technical assistance in the field of medicinal plants and for improvements to the aluminium smelter at Regar. Both projects are in the early stages of development.

Industrial branch profiles

Tajikistan has a strong resource base for the development of food processing and related agro-industries. During the Soviet period Tajikistan was known for its fruits, vegetables, grapes and wine, and is also a significant producer of tobacco. In addition, the country's substantial livestock population provides a suitable base for a dairy products industry. Unfavourable weather and the dislocations caused by the dissolution of the former USSR and the civil war have caused a sharp drop in agricultural production in recent years, however, and a corresponding decline in the output of the food processing industry. High priority is being given to the rehabilitation and expansion of agriculture and food processing, and in February 1994 a new programme was initiated to encourage agricultural cooperatives to invest in expanding their own food processing and consumer goods production capacity. In order to enable it to tap lucrative foreign markets, the industry must make considerable efforts to improve the quality of its output and introduce more efficient handling procedures to reduce losses and waste.

Cotton is Tajikistan's most important cash crop, and although output fell sharply in the early 1990s the government launched an ambitious planting programme in early 1995 intended to increase both the overall size of the harvest and the share of high-quality long staple fibres. Apart from cotton, wool and silk provide important raw materials for Tajikistan's textile industry. Although the production of cotton and wool has fallen since 1991, this has resulted in a reduction in exports rather than in a shortfall of raw material supplies for local textile production, which has remained fairly steady in recent years.

Tajikistan's large animal husbandry industry has given rise to a substantial leather goods and footwear industry. This had a capacity of approximately 9 million pairs of shoes in the early 1990s, although its output was estimated to have dropped to approximately one-third of its 1990 level by 1993. The existence of a strong domestic raw material base provides the leather and footwear industry with a bright outlook and its prospects are improved further by its comparatively low entry cost, which will facilitate the emergence of small-scale enterprises. The industry also has a strong potential to attract foreign investment interest, as indicated by the establishment of a leather processing and apparel making facility by a US-Tajik joint venture before the outbreak of the civil war.

Tajikistan has a substantial chemical and petrochemical industry, which comprised 13 enterprises in 1992 and produces a variety of basic chemicals as well as rubber and asbestos. The industry attracted substantial public investment during the 1980s, and consequently has modern equipment embodying fairly up-to-date technologies. Since it depends heavily on imported raw materials and external markets for its output, the industry has suffered severe disruption in recent years due to the dissolution of the former USSR and the associated unravelling of Tajikistan's traditional trading links. Despite its recent decline in output, however, the industry faces a broadly favourable outlook, primarily because its modern plant and equipment will give it the flexibility it needs to adjust to changing conditions. It has also begun to attract some foreign investment interest, although large-scale private investment will be inhibited in the short term by the high costs of cleaning up its existing legacy of environmental pollution and upgrading its technology to prevent future damage.

With several important deposits of gold, silver, mercury, zinc and other metals, only a relatively small proportion of which are currently being worked, Tajikistan has an important resource base for the further development of its metallurgical industry. This presently consists of nine enterprises engaged in non-ferrous metallurgy, of which the most important is the Regar aluminium smelter near Dushanbe. Other significant plants include a large hydro-metallurgical operation at Isphara in the north of the country, which formerly produced strontium, barium and other rare metals, and a ferro-vanadium combine with an annual capacity of 1,500 tonnes. Although the disruption of trade and the civil war have taken their toll on the metallurgical industry, Tajikistan has been able to attract considerable foreign investment interest in the development of its metals resources. The development of the metallurgical sector in Tajikistan will nevertheless be constrained by a number of factors, including the remoteness of many of its raw material deposits and a shortage of domestic financial resources. The outlook for the Regar aluminium plant in particular is not very promising, and a survey published by the World Bank in 1994 has seriously questioned its ability to operate profitably in a competitive environment.

The machinery and metalworking industry in Tajikistan does not have a specific natural resource base, and was established primarily as a consequence of the policy of inter-regional specialization pursued by the former USSR. The industry consists of 398 enterprises producing industrial appliances; automotive, aviation, and oil and gas equipment; textile and agricultural machinery; jewellery; and a variety of electrotechnical products such as transformers, cables, light bulbs and electronic components. The output of the machine-building industry has declined sharply since

1991 due to the loss of raw material supplies, export markets and qualified personnel. By 1994 it had fallen to a mere 31 per cent of its 1991 level. The recovery of this industry will be constrained by the age and poor condition of its physical plant and equipment arising from the lack of investment since the early 1980s, and by the departure of much of its skilled Russian-speaking labour force in recent years.

INTRODUCTION

The unprecedented events that led to the dissolution of the USSR also resulted in the opening-up of a new and vast region in central Asia, with enormous potential for economic and industrial growth. The region, comprising the newly independent states of Azerbaijan, the Kyrgyz Republic, Kazakstan, Tajikistan, Turkmenistan and Uzbekistan, possesses a tremendous potential for rapid industrialization. With abundant natural resources, ranging from large reserves of petroleum and natural gas in Kazakstan, Turkmenistan and Uzbekistan to vast deposits of other minerals and alternative energy sources, the region constitutes one of the richest concentrations of natural resources in the world.

Within the centralized planning system of the former USSR, relatively less emphasis was accorded to the industrial development of the central Asian region. Most of the central Asian countries nevertheless possess a relatively strong industrial base with the capacity to manufacture a number of capital goods and a wide range of light industrial products.

Although substantially lower than in the more industrialized parts of the former USSR, such as the Russian Federation or the Ukraine, the level of industrial skills available in the central Asian countries is relatively high, and provides an adequate base for further industrial development. The principal problems facing these countries are those afflicting all of the countries previously subject to the centralized planning system: the lack of an entrepreneurial base and of a market-oriented system of industrial production and technological development.

The period from 1991 to 1992 was one of considerable dislocation for most of the central Asian states. The dissolution of the former USSR prompted a major disruption of the existing inter-republic trade and the currency and exchange mechanisms, forcing a significant proportion of the external trade of the region to be conducted through barter arrangements in 1992-93. The situation was exacerbated in several of the republics by internal and external armed conflicts: Azerbaijan faced an extended war with Armenia over the Nagorno-Karabakh region, and Tajikistan became embroiled in a civil war. Smaller conflicts arose in some of the other republics.

In order to meet their stated goals of rejuvenating the industrial development of their economies and the transition to a market-oriented system, the countries of the central Asian region will need to create an environment in which private enterprise can flourish. This will require not only the privatization of a large segment of their industrial base to increase the degree of competition in the system, but also the development of the critical institutional infrastructure required to encourage and support private initiative as well as the transition process in general. A considerable measure of training in the skills required to operate under a market-oriented economy, such as cost accounting, will be necessary, and will have to be accompanied by the creation of an appropriate framework of market supervision, including the introduction of enforceable laws governing competition and bankruptcy.

The testing period for the central Asian region is continuing, although diplomatic, economic and trade relations between the republics of the former USSR, and between the central Asian republics and their other neighbours beyond the boundaries of the former USSR, are gradually being improved. The degree of socio-political stability across the region has also increased, and has helped to stimulate a growing number of proposals for foreign direct investment (FDI) by multinational companies, particularly in Kazakstan, Uzbekistan and, to a lesser extent, Turkmenistan, for the exploitation of the vast natural resources of these countries.

On the part of the central Asian countries, the response to such foreign investment proposals has been positive and welcoming, and a large number of joint venture agreements have been signed

between multinational companies and state-owned enterprises active in the natural resource sectors of these countries. There has so far been relatively little foreign investment or participation in the upstream reaches of the manufacturing sector, however, including the manufacture of capital goods and intermediate products, where there is considerable scope for such investment. The consumer goods sector, by contrast, has seen a number of recent investments and strong interest, but the total amounts invested to date remain low.

At the same time, the pace of industrial growth has slowed considerably since 1991, with the existing state-owned enterprises suffering major dislocations as a result of the disruption in supplies of essential materials and inputs from other states of the former USSR, and the loss of markets for the products of these enterprises. Many of these enterprises require substantial restructuring in order to be able to remain afloat in the increasingly competitive markets in which they are forced to operate.

Privatization

The development of the state-owned enterprises in the central Asian republics needs to be viewed in the context of the programmes for privatization initiated in these countries, and of the efforts that have been undertaken to restructure these enterprises. The implementation of the privatization process has varied considerably in the six central Asian states, with the privatization of small-scale enterprises having proceeded particularly smoothly in Kazakstan and Uzbekistan, and having begun to be undertaken in the other countries. However, a more gradual approach has been adopted in central Asian countries for the privatization of the larger state-owned enterprises, as a result of which the growth of the private sector in these countries has been confined mainly to the emergence of small-scale and micro-enterprises.

Unlike the central European countries, where foreign companies were able to acquire privatized enterprises, there has been little effort to attract foreign interest in the central Asian republics. This reflects a higher degree of reluctance on the part of both the multinational companies and the national authorities in the central Asian countries. Even though the latter have generally welcomed foreign direct investment, the governments concerned have tended to scrutinize such investment proposals carefully, and foreign ownership has tended to be limited to minority holdings in most cases.

It is unlikely that the central Asian republics will adopt policies for quick and full privatization in the foreseeable future. At best, it will be a gradual and sequential process. Such an approach is well grounded and should yield positive results. At the same time, there is a danger that the central Asian countries may adopt, and indefinitely continue, a policy of state capitalism through their large state-owned enterprises, which may not be desirable in the long run.

Enterprise restructuring

The issue of privatization has also to be considered in the context of restructuring of the principal state-owned enterprises in these republics. The most critical element in the future development of these republics and their transition is the creation of a competitive environment, not the ownership of enterprise shares. Whether state- or privately-owned, what is important is that enterprises function efficiently. This is accomplished through competition and the imposition of hard budget constraints.

Whether privatized or not, the principal objectives of the existing enterprises in the region must be to ensure greater efficiency and to improve productivity and competitiveness. This will require

varying degrees of enterprise restructuring. In most cases, the needs will be extensive and will require the development of new products, the acquisition of new technologies and production processes, and the application of modern managerial, accounting and marketing practices. For those enterprises remaining state-owned the reorientation to market operations will require the imposition of hard budget constraints and the end to preferential treatment, such as for credit and for purchase orders under the state order system.

The privatization of state-owned industrial enterprises could then take place on a gradual and selective basis, but a programme for enterprise restructuring needs to be undertaken as soon as possible. This has already happened in Kazakstan and Uzbekistan and is also expected to be initiated in the other central Asian states.

Any extensive programme for the privatization of major enterprises must be developed with care and should be closely linked to a prior assessment of the implications of enterprise restructuring. For example, in the absence of a well-developed local private sector, the privatization of large enterprises could well involve the creation of several smaller units which could be transferred to local entrepreneurs. It is therefore important that, whenever possible, an industrial restructuring programme should precede decisions on the privatization of major enterprises.

Policy framework for institutional development

The policy framework and the market-oriented institutional and enterprise requirements for industrial development can be considered under several broad headings. First, the policy structure has to be viewed in relation to the creation of a conducive climate for the mobilization of investible resources and for promoting new investments in various fields from both domestic and foreign sources. Secondly, a strong institutional infrastructure has to be developed to support the process of broad-based and diversified industrial growth designed to achieve the optimum utilization of local endowments and factor resources. Enterprise-level support has to be provided both directly and through national institutions providing functions and services which have an impact on industrial growth and the activities of local enterprise.

Industrial objectives

With respect to clear industrial objectives, the position in most of the central Asian republics is still being formulated. While the principle of increased market orientation has been recognized, there continues to be a tendency for industrial development to be primarily achieved through existing state-owned enterprises. This is an understandable approach since industrial activities have been conducted entirely through state enterprises in the past. At the same time, it is essential not only that state-owned enterprises are suitably restructured in order to participate effectively in a competitive market environment, but also that local private-sector capability is developed to supplement the role of state-owned enterprises.

It is unlikely that all existing state-owned enterprises in the central Asian republics will be privatized in the next few years. Nor would such a situation be desirable until the private sector in these countries had developed to an adequate extent to take over the operations of state-owned undertakings. The present policy of state capitalism, particularly in the more industrialized states of Azerbaijan, Kazakstan and Uzbekistan, should gradually evolve into that of a mixed economy, with the participation of both state-owned undertakings and local private-sector enterprises. It is only after considerable time that such a mixed economy could be transformed into a wholly private-sector framework in the central Asian region.

Legal framework

An essential prerequisite for the evolution of mixed economies in the central Asian republics is the development of an appropriate legal framework for the functioning of market-oriented enterprises, in addition to specific policies for achieving increased investment or production in particular fields. In all the central Asian states certain basic legislation has been adopted, particularly with respect to the ownership of property and the operation of business activities by individuals and groups. The legal framework is by no means comprehensive, however, and a review of the total package of laws and regulations relating to industrial activities in each of the central Asian states is necessary.

Thereafter it will be necessary to develop, for each state, a comprehensive commercial code or body of company legislation, which would define various forms of business organizations; shareholding and capital participation; exercise of rights of ownership and property transfer; management control, including the functions of boards of directors and management; various contractual relationships, obligations and redress; regulations for employment; intellectual property rights including patents, trademarks and copyrights; and, in general, a broad-based legal framework within which local enterprises can be established and operated.

Tax system

The policy framework would need to prescribe a tax system which would be favourable for new investments and for the reinvestment of income and profits on the expansion or establishment of new business enterprises. An important aspect of industrial policy in these countries should also be to ensure that promotional and other incentives provided for foreign direct investments do not discriminate against local enterprises and investors. The structure of fiscal and non-fiscal concessions should basically favour new industrial investments, both national and foreign.

Local entrepreneurial development

It is in the area of the development of local private-sector capability that policies and institutional developments in the central Asian republics have been most inadequate to date. Private-sector development has generally been viewed in these countries as being synonymous with the privatization of smaller enterprises, as in Kazakstan and Uzbekistan. Once this is done, and ownership is transferred, little responsibility is taken for meeting the needs of these enterprises for credit, technology and marketing support. This has been a major weakness in market orientation in the region and it is important that new initiatives are undertaken in this regard.

The promotion of local entrepreneurship and enterprises requires, first, a conducive climate for investment and risk-taking by local persons with business initiative; secondly, the provision of entrepreneurial training for selected local persons; and, thirdly, the provision of credit and technology and marketing facilities for locally-owned small and medium-sized industries and the development of linkages by local enterprises, both within the economy and with external enterprises. A comprehensive package of policies and institutional support has to be provided if locally-owned enterprises are to be developed quickly.

A critical aspect of private-sector development in central Asia is the need to develop a new class of local entrepreneurs. New investments should not be viewed primarily in terms of foreign investments. Even if foreign investments are adequately forthcoming in some central Asian states, these may largely be limited to certain fields, mainly natural resource development. Unless local entrepreneurs and enterprises are developed, rapid and diversified industrial growth through

private-sector initiative is unlikely to be achieved. The development of local entrepreneurial capability involves the implementation of a programme for the motivation and practical training of selected local entrepreneurs in business management, including training in accounting, production planning, use of industrial technology, management and marketing, and the development of external linkages.

Small and medium-sized enterprises (SMEs)

The promotion of local SMEs which would follow the growth of local entrepreneurship also involves the development of an institutional capability for the provision of credit, technology, and marketing on the one hand, and physical support facilities, such as industrial estates and technology parks, on the other. The most important requirement for SMEs is provision of credit. This has posed considerable practical difficulties in most transition economies, since adequate assets as collateral against medium-term loans are often not available. It will be necessary for commercial banks in the central Asian states to set up suitable credit arrangements for small businesses, which are primarily linked to the assets created from such loans by way of mortgage or hypothecation, and utilize such assets as collateral as far as possible.

In the early stages of SME development in these countries it may be necessary to provide physical support facilities, in the form of industrial estates with common machining services and other facilities, in one or two locations in each country. Technology parks for priority industrial subsectors could also be considered. It would be desirable to involve representatives of private sector bodies and associations with public-sector institutions dealing with the promotion of SMEs. Such associations do not exist in most central Asian economies and will need to be encouraged and fostered.

Development of institutional capability

Apart from a comprehensive legal and policy framework, with appropriate regulatory measures in various fields, the most critical requirement in the central Asian states is the development of institutional capability and facilities for various critical industrial functions and services. Such institutions have to be developed to provide:

- credit to local industrial and business enterprises;
- training facilities for local entrepreneurs, technologists, managers and other specialized personnel;
- technical support for the development of small and medium-sized enterprises;
- information to local enterprises on alternative technologies and their sources, and assistance in technology negotiations and acquisitions;
- facilities for technological absorption and adaptation, both at enterprise level and through applied research institutions at national or local levels;
- marketing facilities and linkages with large state-owned enterprises and foreign enterprises in various fields;
- quality control and standardization; and
- extension services to local small and medium-sized enterprises.

Development banking

The most important group of support institutions relates to development banking; it is essential that the banking system in each of the central Asian states is restructured to provide long-term and medium-term credit, besides working capital, to local industrial enterprises. The present structure, by which highly favourable terms continue to be granted only to state-owned

undertakings, must gradually be replaced by local financial institutions providing loans on comparable terms to various local enterprises, whether state-owned or privately-owned. In fact, in the case of small and medium-sized enterprises, special institutional facilities may need to be developed.

Human resource development

The development of human resources for the changing needs of competitive industrial enterprises is an urgent necessity across central Asia. Extensive training facilities need to be provided for local entrepreneurs on the one hand and for technologists, managers and other specialized personnel on the other. The need to develop local entrepreneurship has already been emphasized. However, the training programmes introduced in each country must also include the training of management and specialized personnel to meet the evolving needs of industrial enterprises.

With rapid technological changes, human resource capability also requires constant modification and upgrading. Thus it is advisable that each republic develop a training and management institute or similar institution to make an assessment of projected specialized manpower requirements and undertakes a programme of specialized training, either in the country or in external institutions, for creating the technical personnel within the required time-frame required. Special programmes for training will also be needed for various levels of management personnel, both in the state-owned enterprises and in private-sector enterprises as these are set up. Market-oriented management capability is an urgent requirement and should also be an integral feature of restructuring programmes of state-owned organizations.

Technological capability

An essential prerequisite for industrial growth in central Asia is a substantial inflow of foreign technology and expertise, both for existing state-owned enterprises and for new enterprises. For existing enterprises, much of the technology used is obsolete and outdated. Technology inflows can be attracted either through the development of joint venture arrangements with foreign companies, or through technology licensing agreements with companies possessing the necessary technology and know-how. This, however, requires knowledge of alternative sources of technology which can be contacted for technology transfer on commercial terms and conditions. There has been no licensing of foreign technology by the central Asian state-owned enterprises so far.

Inflows of technology will also be necessary for local small and medium industries as these are set up by local entrepreneurs. Experience has shown that a vital institutional need is related to the development of technological support to local enterprises. This has to be considered at various levels. First, an information system needs to be developed on alternative technologies in priority sectors of each of the central Asian countries, together with alternative sources for specific technologies, and assistance on contracts with technology sources for technology licensing or transfer. Secondly, institutional assistance will be required by local enterprises, state-owned and private, in negotiations on technology transfer with foreign companies. For this purpose, it would be desirable to prepare guidelines on contractual terms and conditions which could be followed by local enterprises in their negotiations. Thirdly, institutional facilities need to be developed for technological absorption and adaptation through applied research at national or local levels in each of the countries. The existing agencies dealing with science and technology could be restructured to provide such institutional support. It may alternatively be necessary to set up an institute for technological information and development which would provide an institutional framework for the extension of technological support to local enterprises.

Quality control and standardization

In order to ensure competitive efficiency it will be necessary to achieve specific quality standards in terms of products, production standards and techniques. For example, the ISO 9000 Series represents international standards for design, implementation and quality management for a wide range of products. Such standards must necessarily be achieved by local enterprises competing in international markets.

The institutional requirements in this regard relate not only to the achievement of quality standards, but to the establishment of certification bodies for ISO 900 and to the setting up of centres for productivity and standards for respective countries. The institutional requirement indicated above also needs to be established fairly rapidly in each of the republics if local enterprises are to compete effectively in international markets.

Promotion of foreign direct investment (FDI)

While the potential profits arising from the exploitation of natural resources appear to be high enough to attract FDI, regardless of the prevailing obstacles and high levels of risk, this is not the case with other sectors such as manufacturing. Thus it is important that these republics provide an attractive environment for FDI. For the majority of potential investors this includes clearly defined regulations and investment guarantees, and the promise of the rule of law.

Fairly well defined policies and procedures relating to FDI have been adopted in the central Asian republics. These may, however, need to be refined further in some of the countries. The experience of other countries, especially in central and eastern Europe, suggests that the following issues may need to be reviewed:

a. The degree of foreign participation. In many of the transition economies, foreign investments are permitted in all sectors except national defence, and there is no limit on the level of ownership. Restrictions in these areas need to be reviewed in the central Asian republics.

b. The objectives of foreign investment. These may include the rapid development of human resources and maximization of employment of nationals, the inflow of foreign capital and technology for accelerated industrial growth and diversification, the development of export capability in various fields and/or the optimum utilization of natural resources, but they should be clearly defined. Foreign investors are more comfortable and willing to invest when they know what is expected and desired of them. With this knowledge, business plans can be tailored to meet both the needs of the investor and the goals of the host republic. By the same token, the host country can more easily assess project proposals if it their goals are clearly defined.

c. The corporate form of FDI. This may range from a wholly foreign-owned subsidiary of a foreign company to a joint-venture enterprise with a state-owned enterprise or with a private individual or group of individuals. It may be advisable that FDI be permitted in any corporate form determined by the foreign investor. The particular needs of certain projects may necessitate a partner while other deals may not, and the investor may be sensitive to the issue of corporate governance.

d. The employment of expatriates. Enterprises having FDI should be entitled to employ expatriates in senior positions. Not only does this solve many of the skill gap problems, but it also lends a large degree of comfort to the investor. Expatriate personnel should be required to pay personal income tax at the same rate as local employees.

e. Support institutions. National institutions and agencies dealing with FDI should perform a variety of functions. These include the preparation and circulation of necessary information on investment projects in the country; the promotion of specific investment propositions through investment profiles and contacts with foreign enterprises and prospective investors; the provision of assistance to foreign investors with respect to location, local participation and local materials and inputs; and any other assistance that may be required by foreign investors.

f. The approval mechanism for FDI. The approval process in most of the republics needs to be streamlined. While such investments may be subject to prior approval of the government, speedy approval is essential. Lengthy negotiations and approval delays are one of the biggest deterrents to FDI. The necessary authorization or decision should be issued by the government within 60 days of the receipt of any proposal.

g. Profit and capital repatriation guarantees. The transfer of dividends due to foreign shareholders and legitimate payments to foreign enterprises should be freely permitted in convertible currency. Foreign shareholders should also have the right to transfer their shares to third parties by agreement with the other shareholders, and should be entitled to repatriate the full proceeds from such transactions. Apart from remittances of dividends and other contractual income, foreign investors should be permitted to remit profits from any investments, proceeds from the liquidation of an enterprise, payments for debt servicing, and fees and royalties for technology transfer and technical services, including management.

Once the environment for FDI is in place, it is important that these republics get the word out. Outside the potential for the exploitation of natural resources, few investors are aware of the opportunities that exist in this region. Foreign investors will need to be provided with all the necessary information on the economic and industrial potential of the country and specific investment opportunities in various fields and sectors, and for particular projects. For this purpose, a list of preferred fields for foreign investment should be announced and published from time to time, together with the distribution of investment profiles on selected sectors and projects.

Environmental policies and programmes

It is essential that a detailed and realistic programme is drawn up for the implementation of environmental policies and programmes, particularly those arising out of industrial activities, including mining activities in each of the central Asian republics. As in the case of other republics of the former USSR, the legislation enacted under the centralized Soviet system established high standards and requirements for environmental protection. Most of these standards, however, have not been adequately monitored or complied with. It would be necessary to ensure appropriate standards in the present day context and achieve full compliance with such environmental standards, with severe punishments for the violation of environmental regulations.

Clearly defined environmental laws and regulations are particularly important to foreign investors. Especially important to them is clarification and strict apportionment of liability for past damage if existing enterprises and sites are being acquired. Potential investors are far more concerned about uncertainty than stringent standards.

External linkages

One of the most important objectives of the central Asian republics is to improve and expand their trade, investment and industrial linkages with other countries outside the former USSR. All have joined international trade organizations and entered into bilateral agreements as well. Their geographical location has enabled most of these countries to develop closer economic ties with China, Pakistan, Afghanistan, the Islamic Republic of Iran and Turkey. The similarity in resource base may make the Gulf Arab states natural investment partners.

It is also critically important that links with the republics of the former USSR, the Russian Federation in particular, be kept strong. In the near and medium term they will remain important markets for both inputs and outputs, and the Russian Federation will continue to control the major outlets for much of the region's oil and gas exports until new pipelines are constructed. The Russian Federation will also continue to be a major player in such regional issues as the development of the Caspian Sea oil and gas resources.

CHAPTER ONE: KAZAKSTAN

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

The historic and Soviet periods prior to 1991

Until the turn of the 19th century the economy of Kazakstan was dominated by traditional nomadic pastoralist agriculture, with the vast majority of the population engaged in the rearing of livestock or minor trading activities. It was not until after the abolition of serfdom in Russia in 1861 that large numbers of Russians migrated to the region and were granted Kazak lands, which had come under the protection of the czar of Russia in the 17th century. These immigrants introduced new agricultural techniques, which permitted the emergence of settled cultivation.

In August 1920 Kazakstan was formally reconstituted as the Kirghiz Autonomous Soviet Socialist Republic.[1/] This was followed by the first serious efforts at economic development in the 1920s and 1930s, when agriculture was collectivized, industrialization was promoted and the mineral wealth of the republic began to be exploited. The forcible attempts at economic and social change during this period resulted in a dramatic fall in the numbers of livestock, however, and to the loss of almost one-third of the republic's population through starvation or emigration.

The "Virgin Lands" programme implemented in the 1950s brought thousands of new Russian immigrants to the fertile but previously uncultivated lands in the north of the republic, as a result of which the proportion of ethnic Russians in the total population rose from 19.7 per cent in 1926 to 42.7 per cent in 1959.[2/] The high rate of population growth and the accompanying increase in agricultural production stimulated a vigorous expansion of the economy during the following two decades. In the 1970s, however, the rate of economic growth began to slow, and by the 1980s it was averaging less than 1 per cent per year.

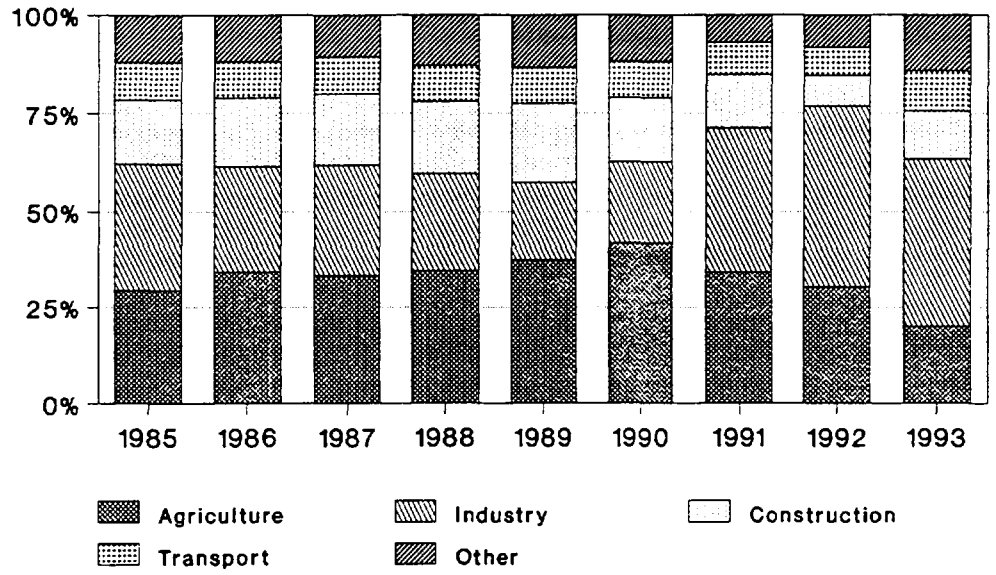
The economy of Kazakstan, like those of the other republics of the former USSR, was developed to serve the needs of the centre. Agriculture was largely geared towards supplying the needs of the USSR, and the industrial sector was more closely integrated into the wider input and output markets of the union than those of the republic itself. In the case of the petroleum industry, for

example, excess supplies of crude oil available in one part of Kazakstan were shipped to Russia, while shortages in other parts of the republic were supplied from Siberia. The exploitation of the republic's mineral wealth was also kept at the raw material level, with little processing being undertaken within the republic. By the early 1990s the republic consequently faced major obstacles and needed to undertake extensive restructuring measures to ensure its continued economic development, despite its wealth of natural resources and strong agricultural base.

The period since 1991

Although Kazakstan was the last republic to withdraw from the former USSR, it was one of the first to initiate the process of economic reform. Beginning in 1991, the political leadership of the republic concluded that the only way to reinvigorate the economy would be through reform and a move towards a free market. With an estimated 90 per cent of the republic's industry being under union control, the main objective of the reform programme drawn up at the time was the mass sale of state assets. The privatization process did not begin in practice until 1993, however, and a considerable degree of economic restructuring has yet to take place.

Fig. 1. Kazakstan: Net material product
(Percentage share)



Source: State Statistics Committee.

As with all of the constituent republics of the former USSR, the achievement of independence resulted in the disruption of the forward and backward linkages of the Kazakstan economy with the other republics, upon which it was heavily dependent. While it was more self-sufficient than many of the other republics, it was still an extremely open economy with trade totalling 40-50 per cent of GDP. Moreover, since Kazakstan ran significant trade deficits with the other republics of the former USSR, as well as smaller deficits on its foreign trade account, it relied heavily on transfers from the central authorities, which accounted for some 10 per cent of GDP.

After experiencing little change in 1990, the economy contracted sharply by 13 per cent in 1991, largely due to a severe decline in agricultural output caused by drought, and contracted by a further 14 per cent in 1992, 16 per cent in 1993, and more than 25 per cent in 1994. All sectors of the material sphere were effected by this recession, with industrial production falling by almost 30 per cent in 1994 and agricultural output declining by 25 per cent in the same year, following a modest recovery in 1992 and 1993. In addition, investment also slowed down significantly in response to the chaos in input and output markets, as well as to a breakdown in investment control associated with the collapse of the USSR's Gosplan-based planning system.

Table 1. Kazakstan: Selected indicators of economic activity, 1992-94
(Percentage change in output)

	1992	1993	1994
Agriculture			
Grain	148.3	-27.3	-14.4
Livestock			
Cattle	-4.0	-2.4	-13.6
Pigs	-17.0	-6.0	-18.9
Sheep and goats	-5.0	-0.6	-26.9
Industry			
Electricity	-3.8	-6.3	-15.9
Coal	-2.9	-11.6	-6.6
Oil	-3.0	-10.8	-11.8
Wood	-21.0	-20.2	-
Fertilizers	-42.0	-65.4	..
Cement	-15.0	-38.4	..
Iron ore	-19.7	-25.4	..
Steel	-14.9	-24.9	..
Zinc	-12.0[a/]	5.6[a/]	..
Lead	-8.0[a/]	19.8[a/]	..
Machine tools	-31.8	-17.6	..
Tractors	61.0	-57.9	..
Services			
Merchandise transport	-17.3	-29.7	..
Passenger transport	-16.3	-13.6	..

Source: State Statistics Committee.

a/ First nine months to first nine months of previous year.

Official estimates for 1995 suggest an easing of the rate of economic contraction to 8.9 per cent. A full-scale recovery of the economy is not expected until 1997, however, even though the latest available disaggregated data indicate positive monthly growth rates of 4.7 per cent in July and 5 per cent in August 1995. Data for the industrial sector also show signs of improvement, with the monthly rate of growth of industrial production increasing more or less steadily from 1 per cent in January 1995 to 9.4 per cent in September, as a result of which the annual rate of decline in industrial production slowed to 7.9 per cent.[3/]

Trade with the other republics of the former USSR has fallen steadily since 1991. In 1993 the volume of exports dropped by 40 per cent while imports fell by 42 per cent. The overall value of trade declined by 16.9 per cent, although there has been some recovery in the more recent past.

The republic has also begun to shift to new markets, and the volume of exports to countries beyond the borders of the former USSR grew by 14 per cent in 1993 while imports from such countries increased by 25 per cent. Modest surpluses were run with trading partners outside the former USSR in both 1992 and 1993, with a large proportion of this trade being conducted with China and through barter arrangements.[4/] The situation deteriorated sharply in 1994, however, when a surge in imports from countries outside the former USSR resulted in a renewed deficit on merchandise trade.[5/] Official data, which may be subject to exchange rate distortions, suggest that the country's total exports amounted to $5 billion in 1995, while its imports amounted to $3.8 billion. Of total trade, 56 per cent was with the Commonwealth of Independent States (CIS).[6/]

The process of price liberalization began in 1991, with increases in administered prices being introduced in January and April of that year. The biggest move toward liberalization was made in January 1992, coinciding with similar moves in the Russian Federation. It resulted in the prices of about 80 per cent of the goods and services included in the retail price index being freed. The remaining items consisted mainly of basic foods and essential services, but even their prices were doubled or tripled. Most wholesale prices, except energy and freight charges, were freed.

The freeing or raising of many administered prices reinforced the inflationary pressures generated by the expansionary monetary policy prevailing in the rouble area in 1992 and 1993. In 1992 consumer prices rose by 1,513 per cent, while wholesale prices surged by 12,490 per cent.[7/] In 1993 the rate of consumer price inflation amounted to 1,571 per cent, and rose to 1,900 in 1994. The government hoped to curb inflation to 70-75 per cent by the end of 1995, however, and appears to have been successful, with preliminary data indicating that the monthly rate of increase in the consumer price index slowed, with some fluctuations, from 8.9 per cent in January to 3.6 per cent in December. During the same period, the year-on-year inflation rate fell from 1,100 per cent to 60.3 per cent.[8/]

Table 2. Kazakstan: Retail prices, 1990-95
(Percentage change, annual average)

1990	1991	1992	1993	1994	1995
4.2	90.9	1,513.0	1,571.0	1,900.0	60.3[a/]

Sources: The Economist Intelligence Unit, *Country Profile: Kazakstan, 1995-96;* London, 1996; and *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

a/ December 1994 to December 1995 year-on-year.

As noted above, Kazakstan has historically received substantial budgetary support from the central authorities in Moscow, with 10 per cent of GDP in 1989 being accounted for by union transfers. Following the dissolution of the USSR, the budgetary situation in the republic deteriorated significantly. In order to maintain a degree of fiscal equilibrium, public spending was decreased and the consolidated budget deficit was reduced from 7.3 per cent of GDP in 1992 to 1.5 per cent of GDP in 1993. Although this ratio increased again to 6.5 per cent in 1994, it was targeted to be reduced to 3.3 per cent in 1995. Preliminary reports published in early 1996 indicate that this target was met, with the actual ratio of the deficit to GDP amounting to 2.8 per cent.[9/]

Great care has been taken to prevent a significant increase in visible unemployment, which was officially estimated at only 1.6 per cent of the labour force in September 1995. In reality, however, unemployment was much higher, and local news agencies reported a jump to 700,000, representing 9.6 per cent of the labour force, in January 1994. While this figure is also dubious, it is probably far more realistic than earlier official figures, which did not reflect the numbers of workers forced to take unpaid leave, work on part-time schedules or sit idly at their place of work. In September 1995 it was reported, for example, that 9.9 per cent of the work force was on enforced leave.[10/] Such measures have been preferred to outright lay-offs since workers have access to the social services provided by their enterprises as long as they are officially employed. The costs of this hidden unemployment have been low labour productivity and enterprise profitability as well as low real wages.

The worsening economic situation in the country prompted the government to establish a National Council for Economic Transformation in early 1993. This body, headed by the prime minister and including the ministers of finance and economic affairs as well as the chairmen of the National Bank, the Anti-monopoly Committee and the State Property Committee, is charged with the implementation of an "anti-crisis" programme aimed at halting the economic decline, slowing inflation and stabilizing the currency.

In November 1993 Kazakstan withdrew from the rouble zone and issued a new currency called the tenge in order to enable the Kazak authorities to gain control over the republic's monetary policy, and in particular the rate of monetary emissions. By December the republic had negotiated a full stand-by agreement with the IMF and in the following months the government began to accelerate the pace of reform, raising taxes, reducing public spending, and further raising the level of controlled prices. The positive results of these measures led to the signing of a second stand-by agreement with the IMF in May 1995, which provides for the republic to receive $300 million from the IMF as part of a $1 billion package of international financial assistance.

The measures to reform the economy have also helped to increase the attractiveness of Kazakstan to foreign investors. Substantial volumes of foreign direct investment have already been committed in the oil sector, with a particularly large $40 billion deal having been signed with the US firm Chevron to develop the Tengiz oil fields. Other sectors with a successful record in attracting foreign investors include banking, light manufacturing industries and hotels.

B. THE ECONOMIC STRUCTURE

The physical environment

With an area of 2.7 million square kilometres from the Volga river in the west to the Altai mountains in the east, and from the Siberian plain to the central Asian desert, Kazakstan is the second largest of the former republics of the USSR and the largest central Asian republic. It borders Turkmenistan, Uzbekistan and the Kyrgyz Republic to the south, China to the east, and the Russian Federation to the north, and has a coastline of 2,320 kilometres on the Caspian Sea.

While the climate is largely continental, it does vary substantially from region to region. The average July temperature is 19°C in the north of the country and 28°C in the south. In January the corresponding averages are -18°C and -3°C respectively. The levels of precipitation also vary. In the mountains, rainfall averages 1,600 millimetres per year, while in the central desert it is less than 100 millimetres per year.

Kazakstan is the best endowed of the central Asian republics in terms of natural resources. It possesses vast expanses of agricultural land, and has traditionally been a significant exporter of agricultural products, especially grain. In addition, the country also has large and diverse mineral deposits, which have enabled the development of important extraction and processing industries.

Local government plays an important role in the administration of the country, which is divided into 19 regions and 28 districts. The present capital, Almaty, is located in the south near the border with the Kyrgyz Republic, although plans are in place to move the seat of government to the city of Akmola, formerly known as Tselinograd, by 2000. This location is regarded as superior to that of Almaty because it is more central, has better transport links with the rest of the CIS and is not as vulnerable to the threat of earthquakes and floods as Almaty. Kazakstan has two major port cities: Aktau on the Caspian Sea, which is connected to the Black Sea and the Mediterranean by canal, and Semipalatinsk on the Irtysh river.

The demographic base

As a result of the high levels of Russian immigration since the 1950s, the country's population is relatively evenly balanced between ethnic Kazaks and Russians. According to the last census, conducted in 1989, the republic had a total population of 17 million, of which almost 40 per cent were Kazaks and 38 per cent were Russians. In the previous census undertaken in 1979, by contrast, the Russians had a slight majority, although their share was estimated to have fallen to 36.5 per cent by 1992 due to a high degree of emigration by non-Kazaks and the immigration of Kazaks from surrounding countries. Kazaks also have a higher birth rate than ethnic Russians, and the Kazak population grew by 25.1 per cent between 1979 and 1989.

Despite, or perhaps because of, the fairly even ethnic balance, Kazakstan has not suffered from the ethnic tension that has afflicted many of the other republics of the former USSR. There have, however, been some calls from ethnic Russians that the Russian language hold equal status with Kazak, which was made the official language by law in 1989 and again by the constitution adopted in 1993. The constitution also calls for the country's president to be a fluent Kazak speaker.

While the country's overall population density is relatively low, at 6.2 persons per square kilometre, it does have areas of high industrialization with correspondingly high population densities, which are concentrated mostly in the north. In 1993 about 57 per cent of the population lived in urban areas, of which the capital Almaty was the largest with a population of 1.15 million. In addition, the country also had 18 cities with more than 100,000 inhabitants. Collectivized agriculture is also concentrated in the northern region, and together with the industrial sector is dominated by ethnic Russians. Other forms of agriculture, particularly livestock breeding, are concentrated in the south and dominated by ethnic Kazaks.

The population of Kazakstan is relatively young, with almost one-third under 15 years of age and only 8 per cent over the age of 60; 11 million people are between the ages of 15 and 64. The average annual growth rate of the population from 1980 to 1992 was 1.1 per cent, but it is expected to drop to 0.7 per cent in the 1992-2000 period.[11/]

Agriculture

Kazakstan has a strong agricultural base, and the sector has traditionally accounted for approximately 30 per cent of GDP. The recent rise in domestic prices towards world levels, especially in the case of non-agricultural goods, coupled with a two-year decline in agricultural output, has resulted in a sharp drop in the relative value of agricultural production and the sector's

share of GDP. According to data compiled by the European Bank for Reconstruction and Development (EBRD), this share had fallen to 19.7 per cent in 1993, and fell further to 9.8 per cent in 1994. During the same period, the share of industry rose from approximately 30 per cent of GDP to 46.9 per cent.

The principal agricultural crops produced in Kazakstan include grain, fruits, sugar beet, vegetables, potatoes and cotton. The country has traditionally been a large exporter of agricultural products, and especially grain. In addition, livestock breeding is very important, as is the production of both karakul and astrakhan wools.

Kazakstan's agriculture is highly susceptible to the vagaries of the weather, and output has fluctuated considerably in recent years in response to year-to-year changes in weather patterns. In 1991 a severe drought caused grain production to fall by more than half, but these losses were compensated for by bumper harvests in 1992. The weather turned again in 1993-95, as a result of which grain output fell to significantly below 1992 levels in 1993, and contracted by a further 25 per cent in 1994 and an estimated 45 per cent in 1995. Livestock production has also declined during this period, but not as dramatically.

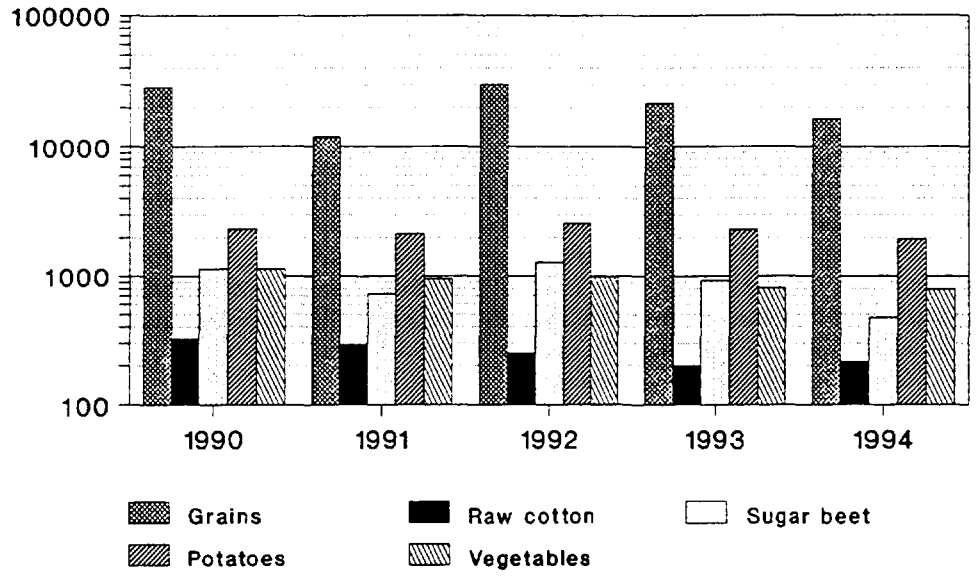
Table 3. Kazakstan: Agricultural production, 1980-94, selected years
(Thousand tonnes)

	1980	1985	1990	1991	1992	1993	1994
Grain (clean weight)	25,930	22,694	28,488	11,992	29,772	21,631	16,454
Rice	364	620	579	521	467	479	283
Oilseeds	126	129	230	155	235	172	184
Raw cotton	358	305	324	291	252	200	208
Sugar beets	2,223	1,750	1,044	674	1,160	925	433
Potatoes	2,238	2,197	2,324	2,143	2,570	2,296	2,040
Pulses	128	113	154	66	123	108	52
Vegetables	1,134	1,085	1,136	955	985	808	781
Fruit	257	133	301	98	169	85	100
Grapes	172	69	139	66	62	40	37
Other	85	64	162	32	107	..	..

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

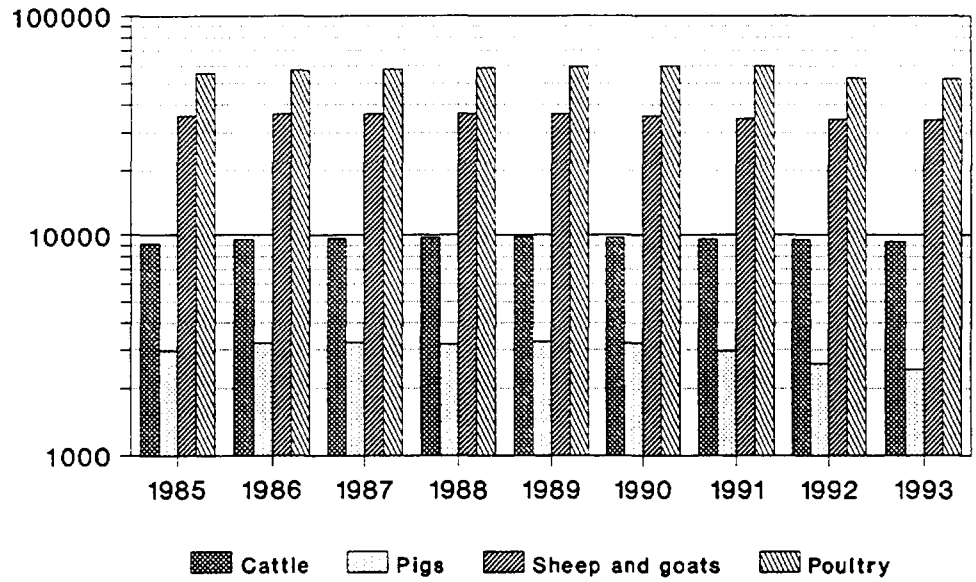
About 220 million hectares, representing about 8 per cent of Kazakstan's total land area, is classified as agricultural land. Of this figure, some 185 million hectares are grazing lands, with the remaining 35 million hectares consisting of arable land. Some 25 million hectares of cultivable land were opened under the "Virgin Lands" programme in the 1950s, but between 5 million and 15 million hectares are experiencing soil erosion and degradation, and may be better suited to grazing. Only about 2 million hectares are irrigated, with the bulk of the irrigated land being devoted to the production of grain, cotton and industrial crops. Since the irrigated lands are concentrated in four major basins, of which one is located in the north of the country and the other three in south, the extensive use of irrigation in these areas has caused severe environmental damage, which is especially serious in the Aral Sea region.

Fig. 2. Kazakstan: Agricultural production
(Thousand tonnes)



Source: The Economist Intelligence Unit, *Country Profile: Kazakstan 1995-96*, London, 1996.

Fig. 3. Kazakstan: Animal husbandry
(Thousand animals)



Source: State Statistics Committee.

Agricultural production in Kazakstan is based mainly on some 8,000 state and collective farms, with little progress having been made in the privatization of farmland. A formal decree permitting private ownership of land was not passed until December 26, 1995, prior to which the privatization process was accomplished through the granting of inheritable leases rather than the outright transfer of ownership. Even the December 1995 decree imposes a number of restrictions, however, including a stipulation that agricultural land can only be owned by citizens of Kazakstan. The country's agricultural production units consequently have a very large average size, estimated at 35,000-40,000 hectares, and frequently contain substantial tracts of marginal land.

This fact, reinforced by other inefficiencies, has resulted in the country's cereal yields being relatively low by international standards, although they display a considerable degree of geographical diversity and inter-temporal variability. This has a significant bearing on the profitability of these farms, with estimates prepared by the Ministry of Agriculture suggesting that most of the 2,400 state farms were unprofitable because of the low yields and low producer prices,[12/] and other official statistics claiming that 1,289 state farms and collectives suffered losses in 1993.[13/] In many cases, therefore, a reallocation of land use, for example from cotton or grain production to grazing, would greatly increase overall agricultural production and profitability.

In the short to medium term, the further development of the agricultural sector in Kazakstan will also be hampered by its heavy dependence on other republics of the former USSR for imports of equipment, spare parts, veterinary medicines, feed protein and additives, and some fertilizers and chemicals. The high degree of inter-republic specialization in the former USSR is particularly evident in the fact that Kazakstan was traditionally a major producer and exporter of tractors, but relied on imports for combines, and that despite its immense hydrocarbon resources it relied on imports of nitrogenous fertilizers.

Table 4. Kazakstan: Share of the private sector in the production of selected agricultural goods, 1991 and 1992
(Percentage)

	1991	1992
Meat	34.6	43.6
Milk	48.3	54.3
Eggs	32.0	36.9
Wool	30.0	35.6
Potatoes	61.0	67.0
Vegetables	38.0	38.0
Melons	43.0	51.0

Source: IMF, *Economic Review: Kazakhstan,* Washington DC, June 1993.

Another constraint faced by the agricultural sector is delay in the implementation of the privatization process, due in part to the persistence of unfavourable relative prices and other inefficiencies, which caused the new private owners of the large centralized enterprises to suffer substantial losses. The role of new privately owned individual and collective farms is rising,

however, and in 1992 they were estimated to have accounted for 67 per cent of Kazakstan's potato output, 38 per cent of its vegetables, 70 per cent of its fruits and berries, 43 per cent of its meat, 54 per cent of its milk and more than 30 per cent of its livestock.[14/] The privatization of the agricultural sector has proceeded very slowly in the meantime. It has to some extent been undermined by a serious shortage of credit for private farms, causing many to be bailed out by the state. These financial constraints are likely to continue to inhibit agricultural growth in the short to medium term despite the legalization of private land ownership since December 1995.

Mining and energy

Kazakstan is endowed with an extensive range of mineral resources, including significant reserves of iron ore, lead, titanium, magnesium, chromium, tungsten, molybdenum, gold, silver, copper and manganese, as well as oil, natural gas and coal. The availability of this mineral wealth has stimulated the development of a diversified mining industry, which has become the most important sector of the country's economy. It accounted for almost the entire chromite reserves of the former USSR, more than 50 per cent of its reserves of tungsten, and between 28 per cent and 38 per cent of its reserves of copper, zinc and lead. It also has deposits of several rare metals, and proven reserves of 8 billion tonnes of iron ore, 34 billion tonnes of coal, 2 billion tonnes of petroleum, and 1,100 billion cubic metres of gas. With these proven reserves widely believed to understate the true scale of Kazakstan's mineral resource base, the mining and minerals processing industries represent the country's greatest asset for future economic development.

Table 5. Kazakstan: Mineral reserves and output, 1991
(Percentage of total corresponding resources of former USSR)

Mineral	Proven reserves	Production
Chromite	99.6	100.0
Copper	28.4	29.6
Lead	38.5	64.3
Zinc	35.3	56.1
Iron	9.7	7.5
Bauxite	22.1	36.4
Tungsten	53.0	3.8
Molybdenum	29.3	5.4
Coal	11.9	18.6
Phosphate	64.7	65.4
Barite	81.7	83.6
Asbestos	20.1	19.5
Gold	..	5.3
Silver	..	50.0

Source: *Mining Journal*, "Kazakhstan – Massive mineral endowment: important opportunities", Country Supplement, London, 11 March 1994.

Because of the policies of inter-republic specialization pursued by the former USSR, Kazakstan has not inherited an infrastructure that enables it to take full advantage of its resources. While Kazakstan has vast reserves of bauxite, for example, it does not have an aluminium smelter. Similarly, the domestic processing of its deposits of iron ore was limited to the production of iron

concentrate. This was shipped to the Russian Federation for further processing into steel, which in turn was re-imported into Kazakstan.

The oil industry provides a further example of the integration of Kazakstan's mineral extraction and processing industries with those of the rest of the former USSR rather than within its own borders. Despite having one of the world's richest deposits of petroleum on its western border near the Caspian Sea, the country was not developed as a major producer of oil, and accounted for only 2 per cent of the crude oil output of the former USSR. With no pipeline having been built to connect the country's western oil fields to its two oil refineries in the east, moreover, the western fields were forced to ship their excess output to the Russian Federation while the eastern refineries were supplied with crude oil from Siberia. Following independence, however, plans have been announced for the construction of a pipeline to connect the two regions.

The development of the mining industry is regarded as an important priority by the government of Kazakstan, and foreign investment is being actively encouraged. Several deals with Western investors have already been signed for the extraction of oil, gas and gold, and for the development and upgrading of smelting and refining facilities. This has already resulted in a significant increase in mineral production, with the output of gold reported to have risen by 6 per cent in 1994.[15/]

A key to Kazakstan's success will be the completion of international pipelines through which the oil and gas can flow to foreign markets, and the continued penetration of its other minerals into western markets. The foreign exchange generated by these exports will help to finance the development of other sectors of the economy, including manufacturing.

Manufacturing

Manufacturing in Kazakstan was developed to serve the greater Soviet market and is thus extremely specialized in Western terms, although less specialized than in many of the other republics of the former USSR. The industrial sector was geared toward heavy industry, especially mining, ferrous metallurgy, chemicals and machinery. Kazakstan thus accounted for 6.2 per cent of the former USSR's output of agricultural machinery and 4.0 per cent of its output of washing machines. The production of other consumer goods was of little importance, however.

This emphasis on specialization and economies of scale has resulted in a number of manufacturing enterprises in Kazakstan acquiring monopoly powers. In order to prevent them from exploiting these powers and accumulating excessive profits in the new environment of liberalized prices, anti-monopoly legislation was passed in September 1992.

Transport and communications

The large size and geographical diversity of Kazakstan necessitate a well-developed transport and communications infrastructure. The sector has consequently become the third most important in the country's economy, accounting for 10 per cent of total output in 1992. Within the sector as a whole, moreover, transport accounted for 80 per cent of total employment.

The transport system in Kazakstan is dominated by an extensive rail network, which had a total track length of 14,460 kilometres at the end of 1991. Most of these rail lines are located in the northern half of the country, and are closely integrated with the railway network of the Russian Federation. A main line connects Almaty with the Trans-Siberian Railway, for example, and in 1991 another rail link was opened between Druzhba on Kazakstan's eastern border and Alataw Shankou in the Xinjiang Uygur Autonomous Republic in China.[16/]

The railways are heavily dependent upon the Russian Federation and the Ukraine for spare parts, equipment and rolling stock, however. This has resulted in the emergence of widespread shortages in recent years, which in turn have given rise to frequent disruptions in the rail service. The situation has been exacerbated by the old age and poor condition of much of the system, including the locomotives. Substantial investment will be required to upgrade the system to a level compatible with the republic's hoped-for growth.

The road transport industry faces similar problems. Although Kazakstan has an adequate road system, with a total length of 164,900 kilometres in 1991, of which some 99,000 kilometres had a hard surface, many of the roads are in disrepair. In addition, the rise in petrol prices resulting from the easing of price controls, and shortages arising from the breakdown of the established marketing system following the dissolution of the former USSR, have also had a disruptive effect. This has been heightened further by a lack of spare parts from the Russian Federation and Belarus for the country's fleet of trucks.

Air transport to and within Kazakstan is limited but improving. The domestic airline, Kazak Airlines, has been established with 100 aeroplanes inherited from Aeroflot. Services to the West are provided by Lufthansa, Turkish Airlines and Aeroflot.

It is not uncommon for a telephone call from Almaty to the West to take hours to be connected. This reflects not only the grossly inadequate size of the existing network, but also the fact that much of its equipment has an average age of 25 years. In 1992 it was estimated that more than one million people were waiting to be connected to the telephone service.

Table 6. Kazakstan: Telephone services, 1990 and 1991

	Total phone lines (Thousand)	Residential phone lines (Per thousand)
1990		
Urban	972	102.1
Rural	282	39.7
Total	**1,254**	**75.5**
1991		
Total	**1,902**	**114.0**

Sources: The Economist Intelligence Unit, *East European Industrial Monitoring Service;* UNIDO national consultant.

Some improvements to the system have already been initiated. These include the establishment of links to the Intelsat system and the installation of international switching exchanges in several of the major cities, which have resulted in a limited number of lines gaining direct access to the international system. The full upgrading of the system to average international standards has been estimated to require $6.5 billion in new investment. Several multilateral and bilateral donors have pledged funds and credit guarantees for this purpose, and there is intense interest from foreign telecommunications companies in establishing joint ventures and investing in this sector.

Banking and finance

Kazakstan has had a two-tier banking system since the late 1980s, when wide-ranging banking reforms were introduced in the former USSR. Further modifications were made in December 1990 when the Almaty branch of the Gosbank became the National Bank of Kazakstan (NBK) and the establishment of new public and private banks was permitted. In practice, however, the administration of the monetary system remained largely unchanged until November 1993, when the country withdrew from the rouble zone.

Under the new system in effect since November 1993, the NBK is responsible for monetary and credit policy, for the licensing, regulation and supervision of commercial banks, and for the management of the exchange rate and Kazakstan's foreign exchange reserves. The instruments of monetary policy have also been altered to include the imposition of reserve requirements, the refinancing of the commercial banks, and lending to the government. The NBK was not granted full autonomy, and hence was not able to pursue an independent monetary policy, until March 1995, when a presidential decree removed it from the supervision of the government and parliament.

Sector-specific specialization has traditionally been an important feature of the banking system in Kazakstan. The agricultural sector was thus served by the Kazagroprom Bank, while the industrial and construction sectors were served by the Turanbank and Kredsotsbank respectively. Similarly, the Kazvnesheconom Bank was responsible for financing foreign trade activities, and the Savings Bank (Sber Bank) had the monopoly on private domestic deposits and loans. Despite a liberalization of these regulations in December 1991, which allowed banks to participate in all sectors of the economy, the system has remained highly specialized. It also remains highly concentrated, with the three largest commercial banks and the Savings Bank accounting for more than three-quarters of its total assets.

The banking sector reforms of recent years have resulted in a significant increase in the number of banks, however, which rose from five in 1988 to 32 in 1990, 72 in 1991 and 158 by the end of 1992, 11 of which were cooperative banks and 48 of which were privately owned. The total number of branches amounted to 5,035, of which 4,477 belonged to the Savings Bank. Although the newly established banks are autonomous in principle, most of them belong to state enterprises and are therefore in practice subject to their control. Their function is to raise funds for the parent enterprise, which often results in a high credit exposure to this enterprise.

The sharp increase in the number of banks has prompted the NBK to tighten its licensing conditions and prudential requirements significantly. In 1992 the minimum capital requirement was raised from Rb5 million to Rb200 million for joint stock banks, Rb100 million for cooperative banks and $1 million for joint-venture banks and foreign affiliates. At the same time the limits on loans to shareholders were lowered from 30 per cent to 20 per cent of a commercial bank's assets, while those on loans to other borrowers were lowered from 50 per cent to 40 per cent.

A substantial, though unknown, proportion of the banking system's assets are reported to be non-performing. The portfolios of the four big state banks are burdened with bad debts, which leaves them only limited funds for granting new investments. A number of other financial institutions also carry major non-performing loans in their portfolios and, due to their lack of liquidity, face bankruptcy. The services offered by the majority of the banks are also not up to international standards. The restructuring of the banking industry consequently constitutes one of the prime short-term objectives of the government's economic reform programme.

A number of foreign joint-venture banks have been established in Kazakstan in recent years. In January 1994 the US-based Chase Manhattan Bank formed a joint-venture bank, the Kazakstan International Bank, with the government of Kazakstan. The bank is focusing primarily on gold and other large-scale projects involving Western partners and generating foreign exchange for the republic. Similarly, ABN-Amro of the Netherlands has entered into a partnership with the Kramnds Bank of Kazakstan and the International Finance Corporation, which holds a 20 per cent stake. As ABN-Amro is also a traditional oil lender like Chase, it was that sector and the other mineral wealth of the country that attracted the Dutch bank. Two other US banks, Citibank and the Bank of Texas, also have operations in Kazakstan.

Trade, tourism and other services

Trade and other services have traditionally played a secondary role in the economy of Kazakstan. These sectors are, however, growing rapidly and are estimated to have accounted for 8 per cent of investment in 1992. In the same year the World Bank estimated that there were 4,000 private enterprises in the republic, the majority of which were in the trade and services sector. With their generally low entry costs, it is likely that these sectors will continue to attract private investors for some time. In the near term, the service sector will also be driven by demand from foreign investors.

Tourism is almost non-existent in Kazakstan at present, but offers great potential for the future in view of the country's long Caspian Sea coastline and its numerous places of cultural, historical and natural interest. The continued inflow of foreign investors and businessmen will also generate a growing demand for high-quality hotels. The construction of a number of new business hotels has already begun in Almaty.

Demand structure of GDP

Table 7. Kazakstan: GDP by category of expenditure, 1992 and 1993
(Percentage of GDP)

	1992	1993	Growth rate[a/]
1. Consumption	73.5	82.7	-15.1
Private	55.4	64.3	-12.4
Public	18.1	18.4	-23.3
2. Investment	28.3	24.0	-27.0
Fixed investment	21.5	17.0	-33.2
Change in stocks	6.8	7.0	-13.1
3. Domestic demand (1+2)	101.8	106.7	-18.5
4. Exports	53.6	38.3	-29.5
Former USSR	34.6	23.4	-40.5
Non-former USSR	19.0	14.9	13.8
5. Final demand (3+4)	155.4	145.0	-20.9
6. Imports	55.4	45.0	-30.6
Former USSR	40.1	31.3	-41.6
Non-former USSR	15.3	13.7	24.8
7. Gross domestic product (5-6)	100.0	100.0	-15.6

Source: State Statistics Committee.

a/ In constant 1993 prices.

The dissolution of the former USSR and the collapse of the previously well developed trade links between its constituent republics resulted in a severe contraction of GDP in Kazakstan. The latest available data, for 1992-93, show that, on the demand side, the biggest contraction in the early 1990s took place in exports of goods and services, especially to the other republics of the former USSR. Investment also suffered, dropping by 27 per cent in 1993 alone. Public investment fell particularly sharply, as the Kazak government tried to decrease its expenditure to keep its budget deficit under control, while public consumption continued to account for about 18 per cent of total demand. As a result, private consumption rose from 55.5 per cent of total demand in 1992 to 64.3 per cent in 1993. Public investment is expected to continue to decline for the rest of the 1990s, but its effect will be partially offset by increased foreign direct investment.

External trade and payments

Kazakstan has traditionally been an open economy. Specialization during the Soviet era left the country highly dependent on the other republics of the former USSR for imports of certain items, particularly consumer goods and raw materials, including minerals. In 1992, the country's external trade accounted for 42 per cent of GDP. After 1992, following the unravelling of its existing inter-USSR trade links, Kazakstan began to search for new markets outside the boundaries of the former USSR, resulting in a progressive shift in the country's trade patterns.

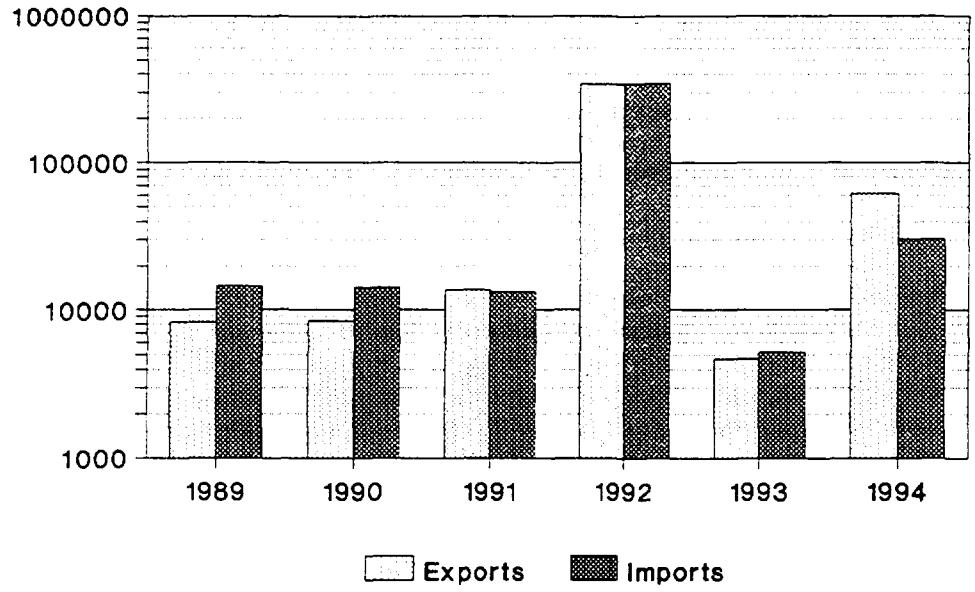
Table 8. Kazakstan: Geographical distribution of inter-republic trade, 1991-94
(Percentage of total)

	Exports				Imports			
	1991	1992	1993	1994	1991	1992	1993	1994
Armenia	0.8	0.1	0.0	0.0	1.3	0.1	0.1	0.0
Azerbaijan	1.2	1.7	3.2	2.0	2.7	1.1	0.6	0.8
Belarus	4.1	2.7	5.0	2.6	4.6	4.6	3.0	1.9
Estonia	0.6	0.1	0.0	0.1	0.6	0.1	0.3	0.0
Georgia	0.6	0.1	0.2	0.0	3.0	0.3	0.4	0.1
Kyrgyz Republic	3.7	2.5	2.3	2.2	3.4	3.2	1.3	0.9
Latvia	1.5	0.3	0.2	1.2	1.1	0.1	0.5	0.2
Lithuania	1.2	0.6	0.5	1.3	1.3	0.3	0.7	0.1
Moldova	1.0	0.3	0.4	0.1	0.9	0.2	0.8	0.1
Russian Federation	58.8	71.0	69.7	78.7	57.0	72.4	70.9	89.3
Tajikistan	2.9	1.2	1.4	0.6	2.5	0.9	0.5	0.2
Turkmenistan	2.4	3.3	2.1	0.7	1.7	2.5	4.7	0.1
Ukraine	9.3	9.7	8.1	5.2	12.9	10.5	7.3	3.6
Uzbekistan	11.9	6.5	6.9	5.3	7.0	3.7	9.0	2.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

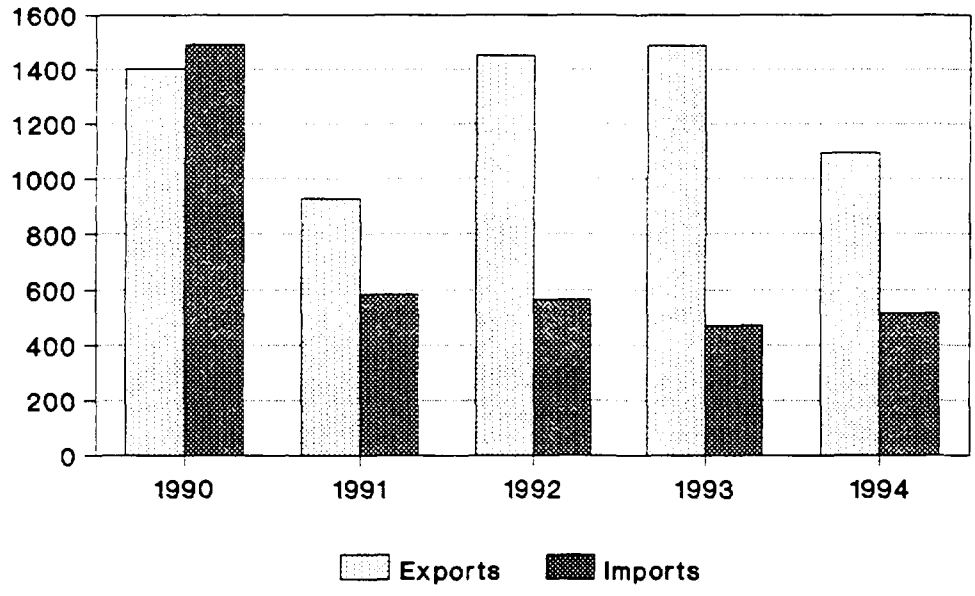
Kazakstan's principal exports have traditionally been light industrial goods, metals, machinery, and chemical products. Imports have centred on machinery and metal products, light industrial goods, food, and oil and gas from the former USSR. As a result of the new focus on the development of the oil and gas sectors, and the increasing interest of foreign investors in this area, oil and gas

Fig. 4. Kazakstan: Inter-republic trade
(Million national currency units[a/])



Source: State Statistics Committee. a/ Roubles for 1989-92; tenge for 1993 and 1994.

Fig. 5. Extra-republic trade
($ million)



Source: State Statistics Committee.

will become major exports in the near future. In line with the increased emphasis being placed by the government on the domestic processing of the country's mineral resources, moreover, the importance of finished-goods exports is also expected to increase relative to that of raw or semi-processed minerals. Light industrial goods, and consumer products in particular, will remain important imports for some time to come.

The Russian Federation has been, and will remain, an important trading partner of Kazakstan, and will continue to dominate the country's inter-republic trade with other republics of the former USSR. At the same time, however, Kazakstan has made considerable progress in developing new markets for its exports and identifying new suppliers for its imports. Trade with China and Switzerland has grown particularly rapidly, with these two countries having emerged as Kazakstan's principal trading partners among the developing countries and industrialized countries respectively. China accounted for more than 16 per cent of Kazakstan's exports and almost 38 per cent of its imports in 1992. Although this share has declined significantly in subsequent years as the range of Kazakstan's trading partners has increased, China remained the country's single most important market and supplier among developing countries in 1994, the latest year for which comprehensive data are available. Switzerland's share of Kazakstan's exports fluctuated around 10 per cent in 1992-94, although its share of the country's imports has risen steadily, from 2.7 per cent in 1992 to 7.8 per cent in 1994. Germany has also begun to assume an important role as a supplier of Kazakstan's imports, with its share in total imports from outside the former USSR rising from 3.4 per cent in 1992 to 24.3 per cent in 1994.

Table 9. Kazakstan: Distribution of trade with countries outside the former USSR, 1990-94, selected years
(Percentage of total)

	Exports				Imports			
	1990	1992	1993	1994	1990	1992	1993	1994
Industrial countries	46.1	57.7	63.3	73.9	37.3	32.2	52.5	66.1
Germany	..	8.5	8.8	5.8	..	3.4	16.1	24.3
Switzerland	..	7.2	11.8	10.3	..	2.7	3.8	7.8
United States	..	7.0	9.8	6.0	..	1.1	8.1	8.2
United Kingdom	..	1.8	6.5	5.4	..	4.1	4.0	3.3
Developing countries	44.0	42.5	36.7	26.1	58.7	67.8	47.4	33.9
China	..	16.3	11.6	7.8	..	37.7	17.0	9.0
Europe[a/]	30.7	16.3	..	11.8	22.6	14.0	..	13.2

Sources: State Statistics Committee; World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

a/ Primarily CMEA countries.

Kazakstan traditionally ran a trade deficit with the other republics of the former USSR, and especially with the Russian Federation, which was financed through transfers from the central government. In 1992 these transfers ceased, but the Russian Federation extended trade credits equal to almost 19 per cent of Kazakstan's GDP. In 1993 trade with the other republics of the former USSR declined considerably, and a large proportion of Kazakstan's imports from former

USSR republics was financed through inter-enterprise arrears. According to estimates compiled by the World Bank, the net value of these arrears may have been as high as Rb344 billion by the end of 1993.[17/] At the same time, Kazakstan's total trade fell into deficit by $681 million in 1993 from a surplus of $97 million in 1992, and in 1994 the deficit increased further to almost $1.3 billion. Preliminary estimates for 1995 suggest a reversal of this trend, however, with overall exports exceeding overall imports by $1.2 billion. The bulk of this surplus, $1.05 billion, was recorded with countries outside the former USSR.[18/]

By 1993 Kazakstan's net current-account deficit reached $615.6 million, compared with $145.3 million in 1992. It was financed largely through export credits provided by Germany, Turkey, Austria, Pakistan and Israel, which amounted to $420 million, and a net inflow of $123 million in foreign direct investment. More recent data suggest that the current-account deficit fell to $339 million in 1994, and that this deficit was more than offset by official grants of $1,179 million, as a result of which the net balance after adjustment for these grants amounted to a surplus of $840 million. These data also indicate that the country enjoyed a long-term capital inflow of almost $1,675 million in 1994, which included $519 million in the form of direct investment.

Table 10. Kazakstan: Balance of payments, 1992-94

	Non-former USSR		Former USSR		Consolidated		
	1992	1993	1992	1993	1992	1993	1994
	($ million)		(Rb billion)[a/]		($ million)		
Exports	1,489.0	1,529.0	419.7	2,209.3	4,196.7	3,922.6	3,285.0
Imports	960.8	1,269.3	486.5	2,950.9	4,099.5	4,466.4	4,129.0
Trade balance	582.2	259.7	-66.8	-741.6	97.2	-543.8	-844.0
Non-factor services	-137.0	-105.1	-15.2	-37.3	-235.0	-145.5	405.0
Resource balance	391.2	154.6	-82.0	-778.9	-137.8	-689.3	-439.0
Net factor services	-175.0	-46.3	-	-	-175.0	-46.3	3.0
Receipts	-	-	-	-	-	-	4.0
Payments	175.0	46.3	-	-	175.0	46.3	-1.0
Net current transfers	52.0	65.0	17.9	50.8	167.5	120.0	97.0
Current-account balance	268.2	173.3	-64.1	-782.2	-145.3	-615.6	840.0[a/]

Sources: World Bank, *Kazakhstan Economic Report*, Washington DC, 7 July 1994; World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

a/ Current-account balance after official grants of $1,179 million.

C. THE MACROECONOMIC POLICY ENVIRONMENT

Economic reforms

Like the other republics of the former USSR, Kazakstan has embarked on a unique and historic transformation from a command economy to a market-oriented system. All the available evidence

suggests that it will be a difficult and lengthy process. With almost 90 per cent of the country's economy being in the hands of the state in 1990, the privatization of existing enterprises and the encouragement of new private businesses is a critical necessity. The extensive degree of restructuring needed to accomplish this transformation, and the heavy demands it will place on external technology and capital, have been acknowledged by the Kazakstan authorities, who are actively encouraging foreign direct investment as a result.

The Kazakstan authorities have already identified several sectors of the economy which they believe to offer the greatest development potential, and are devising policies to attract domestic and foreign investment into them. The most important of these sectors is oil and gas, which has already attracted a great deal of foreign interest. The other extractive industries are also high on the agenda for promotion. In these areas the government hopes to establish a domestic capacity to process the raw materials and produce finished goods.

The modernization and expansion of agro-based manufacturing industries, the conversion of defence-related industries, and the development of machine-tool industries are also high on the government's agenda. The expansion of tourism and the improvement of the country's business infrastructure are other activities for which the government is hoping to attract foreign capital. In addition, the Kazak authorities are looking abroad for investors in technology-intensive industries, waste processing and the production of consumer goods.

In order to attract the necessary foreign investment and to encourage private entrepreneurs to invest, the government knows that it must also develop a stable economic environment and an appropriate legal infrastructure within which such investments will be able to flourish. The new constitution passed in January 1993 consequently guaranteed citizens' rights and the freedom of private entrepreneurial activity (including that of legally incorporated firms and foreign persons). The process of economic reform has already begun, with changes being made in the focus, goals and institutions of fiscal, monetary and trade policy, the widespread liberalization of prices, and the introduction of a new currency.

Fiscal policy

Kazakstan employs a system of fiscal federalism similar to that of the former USSR to oversee the sharing of revenue between the republican government and the country's 21 local governments, covering 19 regions and two cities. In 1991, the local governments accounted for almost 46 per cent of public revenue generation and 62 per cent of expenditure. They were the main sources of public spending through their role in financing transfers and subsidies as well as the operational expenditure of ministries linked to enterprises in their jurisdiction. Local governments also accounted for 87 per cent of public spending in the socio-cultural sectors, including health, education, social security and cultural activities.

By the early 1990s Kazakstan was running budget deficits amounting to almost 10 per cent of GDP, which were financed by transfers from the USSR. With the loss of these transfers and the decrease in tax revenue caused by the sharp slow-down of the economy since Kazakstan gained its independence, the government has been forced to restrict its spending dramatically for both consumption and investment in order to restore balance to the budget. It has been largely successful in this endeavour, and has benefited from the fact that the reduction in tax revenues has to a large extent been offset by increases in non-tax revenues stemming from such activities as privatization. By 1993, however, reports were increasing of enterprises defaulting on tax, and of difficulties encountered by the government in collecting social security contributions and customs duties.

Table 11. Kazakstan: Revenue sources as percentage of GDP, 1985-93, selected years

	1985	1990	1991	1992	1993
Total revenue including grants	38.8	41.4	35.1	24.6	29.7
Grants	4.4	13.6	8.1	1.7	1.6
Total revenue	34.4	27.7	27.0	22.8	28.1
Current revenue	34.4	27.7	27.0	22.8	28.1
Tax revenue	33.4	26.7	23.8	21.5	18.1
Taxes on income and profits	14.2	9.6	13.3	7.6	4.7
Social security contributions	3.7	4.1	-	-	-
Taxes on payroll or work force	-	-	-	-	2.8
Taxes on property	-	-	-	-	0.1
Domestic taxes on goods and services	13.7	11.1	7.9	5.9	4.9
Taxes on international trade and transactions	-	-	-	-	0.5
Other taxes	1.7	2.0	2.5	5.7	5.1
Non-tax revenue	1.0	1.0	3.2	1.3	10.0
Capital revenue	-	-	-	-	-

Sources: World Bank, *Kazakhstan: Economic Report*, Washington DC, 7 July 1994; World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Budgetary processes remained precarious in 1994, with persistent revenue shortfalls and spending overruns resulting in an estimated deficit equivalent to about 7 per cent of GDP, well above the original target of 4.6 per cent. For 1995 the government agreed with the IMF to contain the deficit to less than 3.5 per cent of GDP, and set itself an even tighter target of 3.3 per cent. With early indications suggesting that these targets were not likely to be met, especially because of a continued slump in tax revenue, a mid-term revision of the budget was announced on August 1, 1995. This provided for a reduction in public spending of 25 per cent relative to the original budget, and an increase in the public sector borrowing requirement, to be funded through the sale of Treasury bills, from Tenge500 million to Tenge1.5 billion. These measures appear to have been successful, with preliminary reports suggesting that the deficit was held at 2.8 per cent of GDP.[19/]

Monetary policy

Until 1991, monetary policy in Kazakstan was determined by the monetary authorities of the USSR. From 1992 until November 1993, when the republic withdrew from the rouble zone, monetary policy was under the control of the Central Bank of Russia (CBR).

Money and credit grew rapidly in 1991 and 1992, fuelling a sharp rise in inflation. In order to curb the mounting inflationary pressures, the CBR imposed tighter controls on its monetary emissions from the latter half of 1992 onwards. This resulted in Kazakstan and the other rouble zone republics simultaneously facing severe inflation and an acute shortage of cash. Arrears in the payment of salaries and pensions rose, as did enterprise arrears. Instead of issuing an alternative currency in the form of coupons as many other republics did, Kazakstan initiated a system of prepaid cheques and the direct deposit of salaries.

The introduction of the tenge in November 1993 represented a further attempt by the government of Kazakstan to gain control over monetary policy. By December 1993, the National Bank of Kazakstan had begun to align its refinancing rate with market rates established at weekly credit auctions, and subsequently ceased to extend credit below that rate.

In June 1994, the government unveiled a new 15-month economic plan aimed, *inter alia*, at reducing inflation and government spending. With an annual inflation rate of 2,265 per cent having been recorded in 1993, and the price level continuing to rise by 30 per cent per month into the first half of 1994, the new plan sought to reduce the rate of monthly price increases to 10 per cent by the end of the year. In addition, it also sought to stabilize the tenge, which fell steadily over the first six months of 1994. These efforts proved largely successful, with inflation having been reduced to an average of about 3 per cent per month and the tenge having been stabilized at about Tenge63:$1 during 1995.

The government's attempts to restore monetary stability survived a potentially serious threat in July 1995 when it had to bail out the country's largest bank, Alem Bank. This followed the accumulation of some $100 million in non-performing loans by the bank, which specializes in foreign trade and conducts some 40 per cent of Kazakstan's foreign exchange business. Since most of these bad debts were covered by official guarantees, the government was compelled to provide the troubled bank with a credit of Tenge2 billion.

Price policy

The process of price liberalization, which began in 1991 when a number of administered prices were increased in two rounds in January and April, has been virtually completed. The most significant step in this direction was taken in January 1992; it involved the liberalization of all prices except those of basic foods and essential services, and the doubling or tripling even of those prices that were not freed. In overall terms, this resulted in the prices of only about 20 per cent of the goods and services included in the retail price index remaining under government control. Most wholesale prices, except for energy and freight, were also freed. The remaining administered prices are supported primarily by direct consumer subsidies, or by input and/or output subsidies granted to producers.

The prices of monopoly enterprises are also controlled by the Anti-Monopoly Committee (AMC). While the AMC's stated purpose is to prevent the abuse of monopoly privileges, it in fact functions as a tool of social policy in helping to shelter consumers from the impact of price increases. The government also continues to influence prices and the flow of goods through the economy by means of the "state needs system", which has replaced the former system of state orders. It covers approximately 20 per cent of all products, and is used to ensure the delivery of key consumption goods and the fulfilment of bilateral trade agreements. The system is applied particularly extensively in the agricultural sector, however, and estimates prepared by the World Bank suggest that up to 70 per cent of agricultural production continues to be controlled in this manner.[20/]

Trade policy

Trade regulations have been significantly liberalized in recent years in an effort to enhance economic efficiency. Since 1992 the number of product categories subject to import licences has been reduced from more than 200 to only six,[21/] while the number of products subject to export licences has been cut from about 100 to 35 "products of state significance" produced by state enterprises. In a particularly important measure introduced in February 1993, the scope of the existing bilateral trade agreements with other republics of the former USSR was narrowed and the number of products subject to inter-republic trade at fixed prices was sharply reduced. As a

result, most of Kazakstan's trade has been moved from an obligatory to a voluntary basis, although the government does retain the right to introduce mandatory contracts for individual state enterprises and joint-stock companies in order to meet commitments under the country's remaining bilateral trade agreements.

The government of Kazakstan is actively encouraging the development of foreign trade, especially with countries outside the former USSR. Increased exports of oil and gas are regarded as a particularly important source of funds to finance the proposed rehabilitation and modernization of the economy. Specifically, it is hoped that the increased export of these goods will help to finance the import of the capital goods needed to re-tool the productive sectors of the economy, and also allow for a higher level of consumption to ease the social costs of the current process of transition.

Box 1. Kazakstan: Major trade agreements

* GATT observer status (October 1992).
* Partnership and Cooperation Agreement with the EU (May 1994). Meanwhile, EC Trade and Cooperation Agreement with the USSR (December 1989) remains in force.
* Other OECD countries have granted MFN and/or GSP status, some on an exceptional temporary or *de facto* basis.
* Economic union with the CIS countries signed September 1993. Bilateral barter and inter-governmental agreements in place with CIS countries.
* Single Economic Space with the Kyrgyz Republic and Uzbekistan (January 1994).
* Member of the Economic Cooperation Organization (ECO) formed by Turkey, the Islamic Republic of Iran and Pakistan.

To facilitate this expansion and diversification of Kazakstan's international trade, the government has negotiated a number of new bilateral trade agreements, *inter alia,* with Austria, Bulgaria, Egypt, Hungary and the USA, which granted Kazakstan most favoured nation (MFN) status in March 1993. In addition, the government is also encouraging the re-establishment of strong trade links with the country's neighbours. To this end, an agreement has been signed with Uzbekistan and the Kyrgyz Republic to form a tripartite economic union, the Central Asian Economic Union, which provides for the elimination of all customs barriers between the three countries, the free movement of people, goods, capital and services, and the establishment of a clearing bank to oversee the settlement of debts between the participating central banks. In January 1995 a customs union was also created with the Russian Federation and Belarus, and an agreement signed

with the Russian Federation to provide for the bilateral convertibility of the two countries' currencies and the stabilization of the exchange rate between the rouble and the tenge.

Foreign exchange policy

With the introduction of the tenge in November 1993, Kazakstan took the first steps towards gaining control over its foreign exchange policy. At its inception, the unit's exchange rate was set at Rb500:Tenge1 and Tenge4.68:$1. The rate is now determined by a weekly foreign exchange auction, the Kazakstan Interbank Currency Exchange.

Table 12. Kazakstan: Exchange rates, 1987-95

	Roubles per dollar (Period average)		Tenge per dollar (End of period)
1987	0.6328	1993	6.3
1988	0.6080	1994	54.6
1989	0.6274	1995	64.0
1990	0.5856		
1991	0.5819		
	(End of period)		
1992	414.5		
1993 (October)	1,184.0		

Sources: World Bank, *Kazakhstan: Economic Report*, Washington DC, 7 July 1994; The Economist Intelligence Unit, *Country Report: Kazakhstan, 4th Quarter 1995*, London, 1995.

The tenge depreciated steadily in the first few months of 1994, to Tenge40:$1 by May, as the rate of inflation remained at about 30 per cent per month. This resulted in the introduction of a new programme in June 1994 to reduce inflation and stabilize the tenge. By January 1995 the rate of the tenge had fallen to Tenge55:$1, and by the end of August 1995 to Tenge59:$1. By the end of the year the exchange rate stood at about Tenge64:$1 even though the government's budget for 1995 foresaw a rate of Tenge75:$1 by the end of the year.

Since December 1993 enterprises have been required to exchange 50 per cent of their foreign currency earnings at authorized banks on the Interbank Currency Exchange. Shortages of foreign exchange led to a move by the government in the first half of 1994 to allow individuals to open anonymous foreign exchange accounts in local banks without having to declare the origin of the funds. Wholly-owned subsidiaries and representative offices of foreign companies are also permitted to pay hard-currency salaries.

Policies towards human resource development

Although Kazakstan boasts an extensive and comprehensive education system, the country faces an acute lack of the skills required to make the transition from a command economy to a market-oriented economy. Western business concepts are very new to Kazakstan, and few people in the

country are versed in Western accounting methods, marketing and other management concepts. Even the idea of customer service is unfamiliar to most.

The government is well aware of the need to fill these skill gaps and has established a special institute dedicated to this purpose, the Kazak Institute of Management, with financial support from the European Union. The institute will train students in market economics, business administration and sociology.

The importance of human resource development can also be seen in the government's approach to unemployment. Under the 1991 Law on Employment, job placement and retraining are key elements of unemployment policy. For example, while all unemployed persons are entitled to three months of benefits, anyone who turns down two job offers after that period is automatically disqualified from receiving further benefits. Anyone who is still qualified after this period who has no prior work experience must submit to a training programme. If the person concerned does have prior work experience, retraining is not required until after six months.

Environmental policies

Ecologically sustainable development is emerging as an increasingly important objective of government policy in Kazakstan, and a wide range of environmental regulations have already been issued in the country. The primary responsibility for ensuring the protection of the environment has been vested in the Ministry of Ecology and Biological Reserves, which has been entrusted with the task of establishing procedures for the use of natural resources and developing environmental programmes. The ministry has identified the following as the main environmental problems facing the country:

- the desiccation of the Aral Sea;
- radioactive pollution in the Semipalatinsk and neighbouring regions;
- the rise in the level of the Caspian Sea; and
- industrial pollution as a consequence of obsolete technologies.

The desiccation of the Aral Sea represents a particularly serious problem. It is due to the excessive diversion of water from the Amu Dar'ya and Syr Dar'ya rivers for irrigation following the introduction of the "Virgin Lands" programme of the 1950s, when 25,000 hectares of often unsuitable land was brought under cultivation. This resulted in a severely decreased flow of water from these rivers into the Aral Sea, which has been reduced to almost one-half of its former size. By the early 1990s its surface area had shrunk to 37,000 square kilometres from 68,000 square kilometres in 1960, while its depth had fallen by 15 metres and its salinity had tripled to 30 grammes per litre. The situation has been exacerbated by the poisoning of the sea's remaining water through the overuse of herbicides and pesticides, which has given rise to a high incidence of leukaemia and liver and kidney diseases in the region and has resulted in the decline of a once thriving fishing industry. In addition, the contraction of the Aral Sea has also prompted a sharp drop in the surrounding ground water level, leading to the desertification of hundreds of thousands of square kilometres.

The issue of radioactive pollution is also serious, with the city of Usk-Kamenogorsk in eastern Kazakstan ranking among the world's most polluted places. Not only does the area have to contend with a high level of industrial emissions, but it has also received the fallout from some 500 nuclear tests, including 70 atmospheric tests conducted at the nearby test site of Semipalatinsk.[22/] In mid-September 1990 an explosion in a nuclear fuel factory led to the

further contamination of the area, which is estimated to have affected 120,000 people, resulting in official calls for the region to be declared an ecological disaster area.[23/]

A further problem facing the republic is an unexplained rise in the level of the Caspian Sea, which is threatening low-lying areas along the republic's 2,320 kilometre coastline. According to the latest available estimates, the sea has risen by two metres since 1977, and is expected to rise by an additional three or four metres by the end of the century. Of the West Mangistau region, 6 per cent has already been lost and much more is threatened, including 30 oil deposits, 700 kilometres of roads, 300 kilometres of railways and 1,700 kilometres of pipelines.

Extremely rigorous regulatory norms for pollution control established by the central administration of the former USSR are already in existence. Their implementation has been very weak, however, and is likely to remain so for the foreseeable future in view of the realities of the current economic conditions. The situation is complicated further by the fact that the task of monitoring compliance with the existing environmental standards has been assigned to a number of different institutions, including the Ministry of Ecology and the Ministry of Geology and Water Resources, often with unclear or overlapping authorities.

Attempts to repair the severe environmental damage that has already occurred are hampered principally by a lack of financial resources. This has prompted the government authorities to experiment with novel ideas to finance some of the necessary work. In December 1993, for example, the state-owned company responsible for managing the development of the Caspian offshore shelf, Kazakstan-Caspishelf (KCS), signed an agreement with a consortium of foreign oil companies including Agip, Mobil, Shell, British Gas, Total and BP/Statoil, to conduct a seismic study and research on environmental protection in the regions under its authority. In return for funding these activities, the foreign consortium is to be given preferential treatment to enter into a production-sharing agreement once the geological studies are completed.

An international programme to save the Aral Sea was launched in August 1994. It is expected to cost $220 million and take up to 20 years to complete. An initial $41 million has been raised for the purpose, including $5.5 million from the World Bank. The five countries of the Aral Basin (Kazakstan, Uzbekistan, the Kyrgyz Republic, Tajikistan and Turkmenistan) have each pledged 1 per cent of their respective national budgets to an international fund dedicated to this project.

D. POLICIES TOWARDS INDUSTRY

Privatization

Kazakstan was the first republic of the former USSR to develop a privatization programme when it established the Committee for State Property (Goskomimishchestvo, GKI) in 1991, which was given the responsibility for drafting and implementing privatization legislation. The GKI was also entrusted with representing the interests of the government with respect to state-owned property. With the state sector accounting for approximately 90 per cent of fixed assets and 87 per cent of the labour force at the time, the GKI faced an immense task.[24/]

The objective of this early programme was to privatize all state-owned enterprises by 2000. The proposals drawn up by the GKI called for the privatization process to be conducted in three phases. The first was scheduled to involve the privatization of small establishments, including small retail shops and service establishments. The second phase was projected to involve the

privatization of medium-sized and large enterprises, while the privatization of major enterprises was to be carried out during the last phase.

The Law on Destatization and Privatization, adopted in 1991, identified several methods for privatization, but gave preference to direct sales to workers' collectives. Under this scheme enterprises were entitled to submit their own privatization plans to the GKI, with the evaluation of the firms' assets being based on their net book value. Collectives interested in acquiring the enterprise were offered a 30 per cent discount, and required to make a minimum payment of 20 per cent of the asset value, with the balance having to be paid over a period of ten years. After its privatization, the firm's status was to be changed to that of a limited liability company and its shares distributed among the workers.

In 1992 the basic law was modified to the extent that employees of large and medium-sized enterprises were limited to 25 per cent of the assets of the enterprise. The balance of the shares were to be distributed to such external groups as suppliers and new investors.

By December 1992 some 6,000 enterprises had been privatized, accounting for about 15 per cent of the total estimated value of the fixed assets. Almost two-thirds of these entities were small-scale enterprises, involved mostly in trade and other consumer services. The predominant method of privatization was through direct sales to employee collectives, which accounted for 57 per cent of all state divestments. The second most common method, accounting for 25 per cent of the number of privatized enterprises, was through direct sales to individuals, while the balance were privatized through conversion to joint stock companies or through sale to other enterprises.

Despite the relatively high rate of privatization achieved in 1991-92, the programme came under increasingly severe criticism during 1992. It was alleged, *inter alia*, to have resulted in the sale of some state assets at seriously undervalued prices, and to have perpetuated the firms' inefficient management structures through its emphasis on management-led, spontaneous privatization methods. In addition, the case-by-case approach employed by the programme was also regarded as unnecessarily slow. Under these pressures, the programme was suspended at the end of 1992.

In 1993 the GKI formulated a new privatization programme with the assistance of the World Bank and the US Agency for International Development (USAID). This revised programme also distinguished between small, medium-sized and large firms, but added a further category of "special" large enterprises, such as mining companies, enterprises in defence-related sectors and infrastructure enterprises. The programme was again scheduled to begin with small-scale privatization, but this was to be followed by the mass privatization of medium-sized and large enterprises, with only the privatization of enterprises in the "special" category being carried out on a case-by-case basis. The chairman of the GKI was given the rank of a deputy prime minister to indicate the importance of the function.

The new programme defined small-scale establishments as those with fewer than 200 employees and a book value of less than Rb5 million. Most of these entities operate in the trade, distribution, catering, transport and other consumer service sectors. Their privatization is intended to distribute corporate ownership among a broad segment of the population, to improve the services provided by them, and to generate increased public acceptance of the privatization process ahead of the privatization of the medium-sized and large firms.

The privatization of small entities is carried out through a combination of cash payments and coupons, in equal proportions, in open auctions. The implementation of the programme began in May 1993 in selected pilot cities, and was intended to have resulted in the privatization of all

of the approximately 25,000 small-scale enterprises by the end of 1994. The programme provided for employees of the privatized establishments to be given a special discount, and for proceeds from the sale to be used for the provision of a social safety net.

The mass privatization programme, meanwhile, calls for the divestment of government ownership in about 8,000 state-owned enterprises with 200-5,000 employees during 1994-97. The legal transformation of the targeted enterprises to joint stock companies, and the distribution of vouchers or "investment points", were initiated in late 1993. Urban dwellers received 100 free vouchers from the government, while rural dwellers received 120. These vouchers are newly issued and differ from those used for the privatization of small establishments or housing. In contrast to Russia, moreover, these vouchers are not tradeable in Kazakstan, in order to avoid speculation with coupons prior to privatization.

Individual investors cannot participate in the auctions directly but must deposit their vouchers with a specially licensed investment fund of their choice. These funds can obtain a controlling share in a privatized enterprise through the purchase of a block of shares, and can exert managerial influence. In line with the high level of responsibility vested in them, however, the managers of these funds must fulfil a number of qualifications, and the funds themselves are to be closely supervised by newly established government regulatory agencies. Meanwhile, worker collectives are only entitled to receive a maximum of 10 per cent of the shares in their enterprise. Foreigners are not permitted to participate in the mass privatization programme, but may acquire shares and assets of the privatized enterprises once secondary trading begins.

Despite its general emphasis on mass privatization, the privatization programme launched in 1993 also provides for several categories of enterprises to be privatized on a case-by-case basis. These include the approximately 200 large state-owned enterprises with more than 5,000 employees, as well as some 1,000 enterprises subject to special regulatory norms due to their economic or strategic importance. Enterprises in which the government intends to retain ownership and control, and those where only a partial divestment of government ownership is planned, also fall within this category.

The first auctions under the new mass privatization programme commenced in December 1993 in selected pilot cities. In April 1994, the privatization of 3,500 medium-sized state-owned enterprises was begun, representing the largest privatization programme among the central Asian countries. Participation in this programme is restricted to 140 funds established under a technical assistance programme of the European Union. During 1994-96 the pace of the mass privatization programme is expected to be substantially accelerated, with new regulations being issued in December 1995 to this end.

In January 1994 the government issued a list of 38 state-owned enterprises slated for privatization on a case-by-case basis, including several very large companies with more than 40,000 employees. The list included the Alma-Ata central market, metal manufacturing enterprises, the aluminium plant in Pavlodar, a lead and zinc smelting plant in Taldy-Korgan, and a number of state-owned oil companies. To date, only a few major enterprises have been privatized under this scheme. The largest in the manufacturing sector took place in September 1993, when the US firm Philip Morris acquired a 97 per cent share of the Almaty Tobacco Kombinat. The government has also issued tenders for the sale of two large government-owned margarine and confectionery producing factories, and is preparing three large enterprises in the oil and gas sector for privatization.

In 1995 the government attempted to speed up the privatization process, *inter alia*, through the introduction of a new regulation permitting the direct sale of state assets to foreign buyers from March onwards. This attempt suffered some initial setbacks with the failure of an intended

auction of four large sugar refineries in late July, apparently because their large liabilities rendered them unprofitable to private operators, and the government was forced a few weeks later to extend the deadline for putting vouchers issued under the mass privatization programme into investment funds. Despite these setbacks, the process appears to have gathered pace in the second half of 1995, with almost all of the vouchers issued by government having been absorbed by the investment funds by January 1996.[25/]

Private-sector development

The development of private entrepreneurship began to receive official attention soon after Kazakstan achieved independence, with several laws being passed in 1992-93 to promote this process. The most important of these included new laws on petroleum extraction and mining, foreign direct investment, privatization, bankruptcy, contracts and intellectual property rights. This legislative process culminated in the adoption of a new constitution establishing the legal basis for private ownership in January 1993, which paved the way for the elimination of most legal and institutional barriers to private-sector participation in trade and distribution. Few significant incentives beyond the enactment of the relevant legislation were provided for the development of the local private sector or domestic entrepreneurship until 1994, however, with the primary emphasis being placed on the promotion of foreign direct investment.

In fact, the taxation system discriminates against domestically-owned enterprises relative to foreign-owned ones. Locally-owned trading enterprises are taxed at 45 per cent, while enterprises in the manufacturing and other priority sectors are taxed at 25 per cent. With domestically-owned firms also being required to make mandatory contributions to various social support funds, it has been estimated that they must pay approximately 83-85 per cent of their gross revenues in taxes and other levies. Joint ventures with more than 30 per cent foreign ownership, on the other hand, pay only 25 per cent, while wholly foreign-owned enterprises are subject to a 30 per cent tax. Foreign investments in priority areas are also eligible for a five-year tax holiday.

While the reasons underlying the granting of benefits to selected foreign investment activities may be justified, these concessions put domestically owned companies at a serious disadvantage. In such a situation local entrepreneurial skills can only be expected to develop in such fields as retailing and distribution in the short term, where little start-up capital and local initiative is required. By contrast, the development of such skills in the production and service sectors will proceed only slowly.

In acknowledgement of the unfavourable effects of these policies on domestic private-sector development, a state programme to support entrepreneurial development in 1994-96 was issued in the form of a presidential decree in June 1994. This programme aims to ensure that 70 per cent of agricultural output, 40 per cent of industrial output and 90 per cent of services will be produced by the private sector by 1996.[26/] To achieve this aim the programme intends to:

- create stable legislative foundations for private enterprise;
- formulate a mechanism to give the private sector access to state credit resources;
- support foreign economic activity and create favourable conditions to attract foreign investment;
- create a training programme for the unemployed; and
- improve the agencies of state support for entrepreneurship.

Despite these recent attempts at promoting private-sector development, the economy of Kazakstan continues to be characterized by an extensive degree of state intervention. Numerous constraints

continue to hamper the growth of the private sector, including the persistence of complex regulatory controls, ambiguities in the definition of property rights, the absence of explicit investment promotion measures, resistance from those with vested interests to any change of the status quo, and inadequate industrial, financial and other facilities for local private-sector entrepreneurs. There is a growing recognition that more comprehensive and better coordinated strategies and programmes for private-sector development are needed, however, and the government has sought external assistance for the preparation of appropriate programmes, the strengthening of relevant institutions, and the promotion of private-sector initiative.

Institutional framework for industrial development

The transition from the previous Soviet economic system to a market-based economy inevitably requires a massive restructuring of the political and institutional framework. In some fields new institutions have already been established, but in several others former institutions continue to determine and dominate economic activity. In some important fields, institutional responsibilities tend to overlap and are not clearly defined. An area of key importance relates to the power of state-owned enterprises to make their own decisions regarding production, the procurement of inputs, and sales in the domestic and inter-republic markets and to third countries.

Prior to the country's independence, all economic activity in Kazakstan, including the organization of flow of inputs to state-owned enterprises, prices and investments, was organized and controlled by the central planning agency Gosplan. The identification of production-level and enterprise-level input-output flows was organized through the USSR-wide state order system known as the Goszakaz system. This central organizational structure persisted in Kazakstan even after the introduction of the 1987 Law on State Enterprises, which granted the state-owned enterprises increased decision-making autonomy.

Gosplan ceased to exercise control after Kazakstan achieved independence in 1991, and in 1992 the government of Kazakstan established the State Economic Committee (SEC) to take over the previous functions of Gosplan in specifying input-output flows and allocating investments. The State Supply Committee of the SEC and the respective branch ministries established Kazakstan's State Order Plan for 1992. This plan, which covered about one-half to two-thirds of the country's output, determined the pattern of production and trade during 1992. It was based on fixed prices and required state-owned enterprises to meet their obligations even if no payments were received from their buyers.

The State Supply Committee was renamed as the Ministry of Material Resources in 1992, and was converted to a joint stock company under the name of Kazcontract in 1993. The company is required to plan and implement the flow of inputs and outputs among state-owned enterprises, with its operations being financed by the National Bank of Kazakstan. Its share ownership is currently divided equally between the government and its employees, each of whom own 30 per cent. The remaining 40 per cent is to be distributed at a later stage.

The Ministry of Industry oversees the management of state-owned industrial enterprises. In several manufacturing subsectors *kombinats* or associations were formed during the Soviet era with the objective of increasing the autonomy of member enterprises from the Ministry of Industry. These *kombinats* often continue to implement the functions of the previous subsectoral ministries, which were discontinued in 1991-92. Their role is particularly important in the ferrous metals industries, where they are responsible for both the mining and the processing of the ore under the direction of the Ministry of Industry.

The high priority assigned by the government to the development of the energy sector resulted in this sector being one of the first to be selected for institutional restructuring. The new arrangements, which began to be introduced in 1992-93, are intended to facilitate the mobilization of the large-scale investments required for this sector in the coming years, and to support the growth of its production and exports. They include the Law on Land, Natural Resources and Water, enacted in 1992, which provides the legal basis for the granting of concessions in the mining and oil exploration sectors, and designates the Ministry of Geology as the agency responsible for issuing such concessions. Control over the processing of minerals is assigned to the Ministry of Industry in cooperation with the High Economic Council of the President's Office. The approval of foreign direct investments in the mining sector, meanwhile, is assigned to the National Foreign Investment Agency and the Committee for State Property.

Responsibility for various energy products has been entrusted to a number of newly created state-owned monopolies along product lines. These comprise Kazenergo, which is in charge of electricity generation and distribution; Kazakmunaigaz, which is responsible for the production and refining of petroleum; Kazakgasprom, which controls the production and transmission of natural gas; and Kazakugol, which oversees the mining of coal. The exploration of new minerals is subject to the authority of the Ministry of Geology, while the ownership of industrial combines in the mining and mineral processing sectors is vested in the Committee for State Property.

Financial support for industrial development

Despite its dramatic expansion in the past few years, Kazakstan's banking sector remains significantly underdeveloped. In particular, it is extremely undercapitalized and heavily dependent on the central bank for subsidized credit.

Because of the weaknesses of the banking sector, inter-enterprise arrears have become a major source of financing for state-owned enterprises. These arrears have increased enormously since 1991, partly in response to the liquidity crisis of 1991-92, and partly due to the acceptance of this practice by both the enterprises and the government. In addition, however, credits have been given to state-owned enterprises by the state-owned banking system at negative interest rates. The availability of these subsidized funds has weakened the incentive of these firms to raise their operating efficiency, and the need to impose tighter credit policies and to establish harder budget constraints for the state-owned enterprises has been widely recognized.

The preferential access to subsidized credit from the state-owned banking system granted to the state-owned enterprises also undermines the competitive position of private-sector enterprises, which do not enjoy this access to the state-owned banks and frequently cannot obtain credit from the weak private banking industry. In the absence of an appropriate institutional framework for the provision of short- and long-term financing for new private enterprises, and in view of the high monthly rate of inflation, bank loans beyond three months' maturity have been virtually non-existent. This lack of access to even medium-term financing by private firms constitutes a major constraint on the entry and growth of new private enterprises, and illustrates the need for the establishment of a private enterprise promotion body linked to a national development bank. Such a local source of financing is particularly important in view of the inability of most current international lending institutions to finance private enterprises in Kazakstan.

Support for new private enterprises is provided by the Fund for the Support of Entrepreneurship and Promotion of Competition managed by the Anti-monopoly Commission. The fund operates through a network of regional offices and assists new entrepreneurs, mostly in the consumer goods sector, with industrial extension services. It is intended to provide training in various fields,

including management and marketing, and also offers technical information services. Because of its own resource constraints, however, the fund still operates on a very limited scale and is unable to provide a number of important support functions such as quality control, export promotion and help with the acquisition of foreign technologies.

Promotion of foreign direct investment

When the SEC was established to replace the local branch of Gosplan, it was made responsible for formulating the public investment programme. Despite this change in institutional structure, however, the mechanisms for allocating investments for state-owned enterprises have remained largely unchanged in practice, and continue to be determined primarily by the tax revenues generated by individual enterprises. The tax was assessed on the costs of production of state-owned enterprises, and was paid into an investment fund responsible for financing the firms' investments.

The government's budgetary constraints have resulted in a significant decline in public-sector investment. By 1992 it was estimated that such investments had decreased by about 50 per cent relative to 1990, with particularly sharp falls being recorded in the machine building sector. Data on the sectoral distribution of public-sector investment show that about two-thirds of this investment went to the productive sector, and the remainder for the improvement of the country's social and physical infrastructure.

An important element of planned new investments is the increasingly large foreign exchange component needed to cover the high import requirements of proposed new projects in the energy sector, and to meet the cost of importing critical parts and essential industrial materials and inputs. The encouragement of inward foreign investment flows has consequently become a major objective of the government. Large-scale foreign investments are being sought particularly keenly in the hydrocarbon sector for the modernization of existing oil fields and the introduction of new technologies, especially in geologically or chemically complex formations, as well as for the exploration and development of new oil and gas fields and for the construction of refineries and oil pipelines to accommodate the projected increase in production and exports.

The first round of legislation governing foreign direct investment was passed in December 1990, and opened up most sectors of Kazakstan's economy to such investment. This was followed in 1992 by the establishment of the National Agency for Foreign Investments (NAFI), which is responsible for screening and approving foreign direct investment. The latest step in this process was taken on January 20, 1995, when a new law on foreign investments was passed with the aim of clarifying the ambiguities of the earlier law of 1990.

The 1995 law recognizes three forms of foreign investment: the representative office, the branch, and the enterprise with foreign participation (including 100 per cent foreign ownership). While the new law significantly reduces the number of documents needed to establish an enterprise with foreign participation, it also contains a number of unfavourable changes. These include a prohibition on the granting of guarantees to foreign investors by government and state agencies, as well as the elimination of tax exemptions or reductions for enterprises with more than 30 per cent foreign participation. The guarantee against expropriation is also relatively weak, as the law allows for such expropriation in circumstances where it is carried out for social reasons in compliance with proper legal orders and without discrimination but with the payment of an undefined "prompt, adequate and effective compensation". In order to minimize the unfavourable impact of the new legislation on existing enterprises, however, the law contains a "grandfather clause" providing a ten-year grace period for investments made prior to its enactment in cases

where changes in the law or in the terms of international treaties cause "a worsening of the position of the foreign investor".[27/]

In a further effort to promote foreign investment, the government has identified five free economic zones where foreign investors can import equipment, material and other parts and components duty free, and where companies are exempt from corporate taxes for two to five years and free of all other local taxes. Each of these five zones is designated for specific industrial activities. Thus, the Taldyqorghan region is intended to specialize in the processing of lead and zinc, and for trade with China, while the Zhesqazghan region is intended to focus on the mining and smelting of lead, zinc and copper and the Manghustau region is intended to be dedicated to natural gas processing, petroleum refining and light manufacturing. The East Kazakstan region, meanwhile, has been designated for the mining and processing of copper, zinc and other non-ferrous metals, as well as the manufacture of pharmaceuticals, textiles and animal products, and the Atyrau region, located in the northern Caspian oil and gas field, is intended to become the centre for foreign petroleum exploration and the starting point for a proposed export pipeline.

Enterprise restructuring

By the end of 1991, there were about 37,000 state-owned enterprises in Kazakstan. Approximately 74 per cent of these establishments were small enterprises with fewer than 200 employees, 8,000 were classified as medium-sized and large enterprises with 200-5,000 employees, and about 200 were very large enterprises with more than 5,000 employees. In addition, there were about 1,300 "special enterprises", which included natural monopolies, mining enterprises, and a wide range of activities in the non-commercial sector. Medium-sized and large enterprises employed about half of the labour force.

Traditionally, sectoral ministries controlled the activity of enterprises in their specific sectors. In recent years, smaller sectors have been merged into larger sectoral ministries, such as the Ministry of Industry, which has been entrusted with the coordination of state-owned enterprises in the industrial field. At the same time, enterprises with similar production programmes in several subsectors were brought together in associations in an attempt to increase their autonomy and reduce the role of the branch ministry. The formation of these associations has proceeded more rapidly in some sectors than in others, however, and their legal status is not yet well defined. Their effective operation is also constrained, *inter alia,* by the absence of institutional guidance and overlapping administrative controls.

The government of Kazakstan does not yet have a specific policy or programme aimed at the restructuring of the republic's industrial enterprises. The approach that has been taken is that the private sector should take the lead in the restructuring process, with the government playing a supporting role. To this end, the government is proceeding with the corporatization and privatization, and in some cases the segmentation, of state-owned enterprises. In order to ensure the proper implementation of enterprise-level restructuring, however, the government must provide an appropriate operating environment encouraging efficiency, competitiveness and financial responsibility. This includes the imposition of meaningful penalties for the non-payment or delayed payment of debts, the enforcement of bankruptcy legislation, and the cessation of the clearing of inter-enterprise arrears by the banking sector.

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Growth

The industrial and agricultural sectors have traditionally been of equal importance to the economy of Kazakstan, each accounting for 30-35 per cent of GDP. In recent years, however, fluctuations in agricultural production and changing price relatives have resulted in a dramatic increase in the share of industry in total output, from 21 per cent in 1990 to approximately 45 per cent in 1992-93. At the same time, however, the industrial sector has recorded substantial output decline in absolute terms, so that its increased share in total output largely reflects a more rapid contraction of the other sectors.

Table 13. Kazakstan: Growth of industrial production, 1990-93
(Rb million, constant prices)

Branch	1990	1991	1992	1993
Total	**0.0**	**-0.9**	**-13.8**	**-27.4**
Processed foods	-0.7	-0.7	-17.6	-28.1
Textiles and clothing	..	4.1	-21.7	-71.8
Leather	-0.3	10.3	-21.7	-24.3
Wood products	0.1	-17.0	-29.4	-5.8
Chemicals	-0.7	-30.7	-26.9	-19.1
Building materials	-3.7	1.0	-16.9	-28.2
Metallurgy	-3.5	-1.3	-6.6	9.0
Machine building	-1.8	1.4	-24.7	-16.7

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Structural change

The composition of Kazakstan's industrial output has also changed significantly in recent years, with the importance of the country's oil and gas processing industries having increased particularly dramatically. Within the manufacturing sector, the output shares of individual branches have

fluctuated considerably in recent years in response to shortages of imported inputs and the loss of external markets. For example, industries based on local inputs, such as textiles and food processing, became more important in the early 1990s as they had continued access to raw material supplies and enjoyed relatively steady levels of demand. By contrast, the machine building, metallurgical and chemical industries all suffered a decline due to input shortages during this period. The situation changed dramatically after 1992, when poor food and cotton harvests prompted a fall in the output of the textile and food processing industries. This, in turn, stimulated an increase in the relative shares of the other industries, although their absolute production levels usually fell below the corresponding figures for 1990.

Table 14. Kazakstan: Distribution of manufacturing output by branch, 1985-94, selected years
(Percentage)

Branch	1985	1990	1991	1992	1993	1994
Processed foods	19.6	21.6	26.2	13.1	15.9	14.9
Textiles and clothing	14.8	14.4	17.5	6.2	5.7	4.0
Leather	2.1	1.9	1.9	0.6	1.1	0.6
Wood products	3.0	2.9	2.2	0.2	2.8	1.3
Chemicals	6.3	6.9	6.6	8.4	4.7	4.6
Petroleum refining	8.9	8.3	8.0	21.5	18.3	27.0
Building materials	6.4	6.0	5.2	4.4	6.1	5.1
Metallurgy	18.2	17.4	15.6	30.5	27.9	29.5
Machine building	11.4	10.8	8.1	6.0	11.6	9.0
Other	9.3	9.8	8.7	9.1	5.9	4.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

B. INDUSTRIAL EMPLOYMENT

Quantitative trends

The latest comprehensive estimates available suggest that Kazakstan had a total employed labour force of 6.9 million in 1993,[28/] representing about 40 per cent of the country's total population of about 17 million. Since the 1970s approximately 20 per cent of the labour force has been employed in the manufacturing sector, which has traditionally been the most important provider of employment opportunities after agriculture. The machine-building industry has traditionally been the most important source of manufacturing employment, accounting for 26.5 per cent of the sector's employees in 1990. Other important employers have been the building materials, food processing and non-ferrous metals industries. Most of these industries have historically been state-owned, and in 1991 about 95 per cent of the industrial labour force was employed in the state sector.

Table 15. Kazakstan: Distribution of industrial employment by branch, 1990

Branch	Number of employees	Percentage share
Electrical energy	66,000	4.8
Crude oil and gas	13,000	1.0
Coal	80,000	5.9
Processed foods	133,000	9.8
Textiles and clothing	70,000	5.1
Leather	35,000	2.6
Wood products	50,000	3.7
Chemicals	78,000	5.7
Building materials	124,000	9.1
Ferrous metals	69,000	5.1
Non-ferrous metals	103,000	7.6
Machine building	360,000	26.5
Other	179,000	13.1
Total	**1,360,000**	**100.0**

Source: World Bank, *Kazakhstan: The Transition to a Market Economy,* Washington DC, 1993.

Education and skills

The labour force in Kazakstan is relatively immobile. This has historically been due to the tight controls imposed on the labour market during the Soviet era, when school-leavers were assigned to particular enterprises in line with official manpower plans and agreements linking schools and vocational training centres with enterprises, under which the latter were required to hire a certain number of students every year. Although these controls were relaxed once the new entrant into the labour force had completed his initial assignment, a World Bank survey found that turnover rates in Kazakstan amounted to about 10 per cent, below the corresponding figure for most of western Europe.[29/] While most regulatory controls on employment have now been lifted, mobility will continue to be constrained in the foreseeable future by housing shortages and strict residency regulations.

Kazakstan's labour force is relatively well educated, in part because primary and secondary education in the country is fully funded by the state. More than 50 per cent of students are still taught in Russian, but this is changing now that Kazak has been made the official language. In 1993, the country had 61 institutions of higher learning and seven universities.

In common with the other republics of the former USSR, however, the education system in Kazakstan lacks the capacity to provide the training in management skills needed to restructure and re-organize the country's industrial enterprises, and hence to enable it to make the transition to a market economy. There is consequently an urgent need for instruction in basic international business concepts and practices, and in the use of a number of new technologies. Knowledge of foreign languages is also very limited, and efforts must be made to increase in particular the teaching of English and German.

Concerted efforts must be made to provide training in these areas. This issue is beginning to be tackled, with the authorities having established management training centres and launched retraining schemes within the unemployment programmes. As the restructuring process continues

and inefficient production plants are shut down or rationalized, unemployment levels will remain high and generate considerable demand for such retraining programmes. In a particularly important development, private educational institutions have been permitted to be established since 1992. A large number of such institutions have already been licensed at all levels: primary, secondary and tertiary.

Table 16. Kazakstan: Educational institutions, 1994

Type of institution	Number of institutions	Number of students (Thousands)
Schools	8,942	3,175.9
Professional technical collages	422	160.4
Mid-level colleges	247	222.1
Institutions of higher education	68	272.1

Source: United Nations Development Programme, *Human Development Report 1995 – Kazakstan: The Challenge of Transition*, Almaty, 1995.

The role of women

The number of women participating in the non-farm labour force in Kazakstan increased steadily from the 1930s to the 1980s, rising from only 15 per cent in 1928 to 48 per cent by 1975, where it subsequently stabilized. Highly subsidized child care facilities eased the burden on mothers and helped to encourage women to enter the labour force. In recent years, however, the share of women in the number of unemployed has risen sharply. In 1991 women constituted some 75 per cent of the more than 4,000 people officially listed as unemployed.[30/]

Table 17. Kazakstan: Female participation in the non-farm labour force, 1928-75, selected years (Percentage)

	1928	1940	1950	1960	1970	1975
USSR	..	38	46	45	48	49
Kazakstan	15	30	40	38	47	48

Sources: The Economist Intelligence Unit, *Business Report Kazakhstan, 2nd Quarter 1994*, London, 1994; Lewytzkyj, Borys, *The Soviet Union: Figures-Facts Data*, K.G. Saur, Munich, 1979.

C. PRODUCTIVITY AND PERFORMANCE

Overview

The measurement of both labour productivity and enterprise profitability in the republics of the former USSR is extremely difficult if not impossible. This is due in part to the fact that the fulfilment of a production plan rather than attaining, let alone maximizing, profit was the principal objective of Soviet enterprises. The concept of profit centres was unknown, and accounting systems were geared toward counting production, not costs. Consequently, neither productivity nor enterprise profitability is revealed by the available financial data. The problem is exacerbated further by the fact that many important inputs, including energy, were highly subsidized, and that profitability, even if estimated, does not reflect profitability in a market environment.

Enterprise profitability

While the value of most enterprises in Kazakstan and their potential profitability in a market environment are hard to measure, many of these enterprises are clearly unprofitable under the current system. The World Bank has estimated that the gross losses of enterprises amounted to 24 per cent of GDP in 1993. This represented a significant increase from the 14 per cent figure estimated for 1992, due to changing prices, rising labour costs and higher interest rates.[31/]

Labour productivity

The measurement of productivity in Soviet-style enterprises is also fraught with difficulty since they are highly integrated, often producing several completely unrelated products, and generally also include a large number of ancillary activities such as day care centres, medical clinics and fire brigades. This phenomenon is especially evident in Kazakstan, where the government has promoted the addition of food processing and consumer goods production lines to large metal combines. The situation is further complicated by the fact that effectively bankrupt enterprises, facing only soft budget constraints, have kept on employees while dramatically reducing output.

In general, however, it is safe to say that productivity in a typical Soviet-style enterprise is well below that found in a similar facility in the West. Overstaffing is common, often by 100 per cent or more, and plant layout and production methods generally involve far more material handling. In addition, work habits have traditionally been notoriously poor. The experience in central Europe has shown, however, that productivity can be greatly increased through the restructuring of the enterprise and the retraining of the management and workforce.

D. OWNERSHIP AND INVESTMENT PATTERNS

Ownership

At the end of 1990 approximately 90 per cent of the stock of fixed assets in Kazakstan was owned by the state, and the private ownership of land was not allowed. In 1991 the State Property Committee was established and assigned the task of drawing up legislation on the privatization of state-owned enterprises and the establishment of new firms, including joint stock companies. The privatization of the republic's 31,000 enterprises began in August 1991, although only 380 enterprises were sold that year.

After independence the pace of privatization quickened somewhat, and almost 6,000 small enterprises were privatized in 1992. Most were sold to workers' collectives, although about 400 were reconstituted as joint stock companies. At the end of 1992 the State Property Committee estimated that employment in the newly privatized enterprises amounted to 700,000. In 1993 a further 1,194 enterprises were privatized, and 400 new ventures were created.[32/] By October 1993 local press reports indicated that an estimated 8.2 per cent of state enterprises had been transferred to the private sector,[33/] which was estimated to have accounted for 20 per cent of GDP by mid-1994.

To accelerate the privatization process the first mass privatization programme was launched in April 1994, with the intention of achieving the privatization of about 30 per cent of the economy by the middle of 1995. The programme is similar to other mass schemes introduced in recent years in central and eastern Europe, and involves the distribution of vouchers to citizens who may exchange them for shares in one or more of the 140 investment funds that have been established. The investment funds bid for the shares in the 3,500 medium-sized enterprises of 200-5,000 employees included in the scheme.[34/] This programme has been relatively successful, and by January 1996 all of the vouchers issued were believed to have been absorbed by the investment funds.[35/]

The issue of land ownership remains vague. According to an edict issued on April 5, 1994, legal and natural persons were given certain rights regarding the use and possession of land.[36/] Natural persons were also given the right to purchase the "inheritable use for life" of land from local land authorities, while legal persons were given the right to use or lease land from those authorities. The outright ownership or sale of land is still not possible. The right to use land may be contributed to a business venture as part of its chartered capital. Natural persons may use land for private residences or farming.

Investment

The pattern of ownership in Kazakstan has ensured that investment has historically been dominated by the state. The sharp decline in government revenues in recent years has consequently resulted in a serious decline in investment. The private sector, which is still embryonic but growing rapidly, accounted for almost 8 per cent of investment in 1992 according to IMF estimates.[37/]

The government of Kazakstan is aware of the critical need for foreign funds and technology in order to restructure the country's economy. It is therefore actively encouraging direct foreign investment, especially in the extractive industries, and has passed several laws awarding concessions and guarantees to foreign investors. Since 1990 foreign firms have been permitted to establish wholly owned subsidiaries in Kazakstan, and while foreign ownership of the country's mineral deposits is not permitted, the government has passed laws enabling it to grant concessions for 5-40 years.

E. INDUSTRIAL LOCATION

Manufacturing activities are concentrated in the northern cities of the republic and in the southern city of Chimkent, which has a population of approximately 401,000 and houses one of Kazakstan's three refineries. Atyrau, with a population of 151,000, is also an important industrial city. Formerly known as Guryev, it is located in the west of the country on the Caspian coast and is

involved mainly in petroleum refining and the manufacture of plastics. Kazakstan's third refinery is located in the north-eastern city of Pavlodar, which has a population of 337,000 and is also a centre for the production of tractors and paper.

Ust-Kamenogorsk, with 330,000 inhabitants, is another important industrial city lying in a mineral extraction area in the north-east of the country, while the cities of Petropavlovsk and Aktyubinsk near the northern border with the Russian Federation are significant centres for the production of farm equipment, with populations of 245,000 and 260,000 respectively. Akmola, formerly known as Tselinograd, is located more centrally and has 281,000 inhabitants. It is the centre of the ceramics industry, as well as producing pumps and agricultural machinery. The republic's second largest city, Karaganda, with a population of 613,000, is a coal mining centre and a producer of heating equipment. Almaty, the country's capital, also hosts a number of light industries such as textiles and engineering.

F. ENVIRONMENTAL ISSUES

Like most other republics of the former USSR, Kazakstan has experienced severe environmental degradation. A lack of environmental awareness and concern, as well as the excessive use of energy and raw material inputs resulting from their underpricing, has wreaked havoc on the local environment. Emissions of carbon and sulphur are high, saline water has been dumped into rivers, and large tracks of land have been eroded or poisoned. The damage to human health is also serious and is becoming a matter of critical concern. Equally serious is the damage to the country's physical and natural capital.

Environmental management is now being introduced in the republic and new legislation is being drawn up. While strict emission standards have already been in effect, compliance was low. New legislation, establishing more realistic controls, is expected to be introduced in the near future to encourage increased compliance.

G. TRADE IN MANUFACTURES

Imports

Kazakstan's imports of manufactured goods have traditionally consisted of machinery, metal products and light industrial goods. In view of the goals of the country's economic reform programme, however, imports of machinery and metal products may decline in importance in the long term, as will the import of processed food and some light industrial products. In the short and medium term, however, light industrial products, and especially consumer goods, will remain important imports.

Exports

Kazakstan's most important exports have historically been manufactured goods, including light industrial goods, metals and machinery, and chemicals. Although the new focus on the development of the country's oil and gas sectors will result in these commodities becoming major exports in the future, manufactured goods will continue to play an important role in Kazakstan's export trade. This will be encouraged by the fact that the addition of domestic value to its mineral

resources is a major aim of the country's reform policy, as a result of which the importance of finished-goods exports should increase over time relative to exports of raw or semi-processed minerals.

Table 18. Kazakstan: Trade in manufactures, 1994
($ million)

	Exports	Imports
Vegetable products	118.8	72.1
Prepared foodstuffs, beverages, spirits, tobacco	..	229.4
Textiles and textile articles	99.2	165.3
Footwear, headwear, dress accessories	..	74.1
Chemical and allied products	319.9	272.5
Plastics, rubber, plastic and rubber articles	..	76.4
Mineral products	1,090.5	1,037.1
Base metals and base metal articles	1,296.1	263.6
Mechanical appliances; electrical sound and televisual equipment	88.2	719.7
Vehicles, aircraft, vessels and transport equipment	..	274.0
Total	**3,230.7**	**3,493.8**

Source: State Statistics Committee.

H. INTERNATIONAL COOPERATION FOR INDUSTRIAL DEVELOPMENT

Kazakstan is receiving large amounts of technical assistance from multilateral and bilateral donors. According to data compiled by the Organization for Economic Cooperation and Development (OECD),[38/] much of this aid is concentrated in the areas of agriculture and food, environment and transport. Large gaps are consequently developing between the technical assistance requested by the government of Kazakstan and the amount of such assistance offered in the areas of enterprise development, industry, the financial sector, energy and nuclear safety. This is underlined by the fact that the government's requests for technical assistance for enterprises and industry amount to over $50 million, while similar requests for the agricultural sector amount to only $1.7 million.

The OECD Register records 101 projects as having been completed by July 1994, at an estimated cost of $8 million. At the time, 168 projects were under way, involving a total investment cost of $69 million. In addition, there were 114 projects on offer with a combined estimated cost of $47 million.

The largest donors in dollar terms are the European Union (EU) with total outstanding credits of $50 million, the World Bank with credits of $10.4 million, the United Nations Development Programme (UNDP) with $4.8 million, and the European Bank for Reconstruction and Development (EBRD) with loans of $3 million. Large bilateral donors include Germany with $9.8 million, Turkey with $9.6 million, the USA with $5 million and the UK with $4.5 million.

Table 19. Kazakstan: Technical assistance, 1993 and 1994

	Completed		Under way		On offer	
	1993	1994	1993	1994	1993	1994
Number of projects	60	101	120	168	47	114
Value ($ million)	7.6	8.5	37.5	69.4	28.0	47.0

Source: *OECD Register.*

UNIDO is participating actively in the provision of technical assistance, and several projects have been developed, of which some are still in the approval stage. The most important of these is a $1.2 million multi-agency project funded by the UNDP for the revitalization of several "company towns" in northern Kazakstan. It is expected that UNIDO will play a major role in this project.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

The resource base

As indicated above, Kazakstan has a strong agricultural base covering a wide variety of crops and livestock. Even with the problems associated with the drying of the Aral Sea, the republic has the potential to feed itself and become an exporter of food, rather than an exporter of agricultural produce and importer of processed food.

Table 20. Kazakstan: Agricultural output, 1986-94

	Units	1986-90 average	1991	1992	1993	1994
Grain	Million tonnes	21.1	12.0	29.8	21.6	16.5
Potatoes	Thousand tonnes	2,105	2,324	2,570	2,296	2,040
Other vegetables	Thousand tonnes	1,224	955	985	808	781
Meat	Thousand tonnes	1,465	1,524	1,258	1,318	1,048
Milk	Thousand tonnes	5,342	5,555	5,265	5,577	5,128
Eggs	Million units	4,189	4,075	3,565	3,288	2,772

Sources: International Monetary Fund, *Economic Review: Kazakhstan*, Washington DC, June 1993; United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of a mission to the Central Asian Republics*, Bangkok, 3 October 1993; World Bank, *Kazakhstan: Economic Report*, Washington DC, 7 July 1994; World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

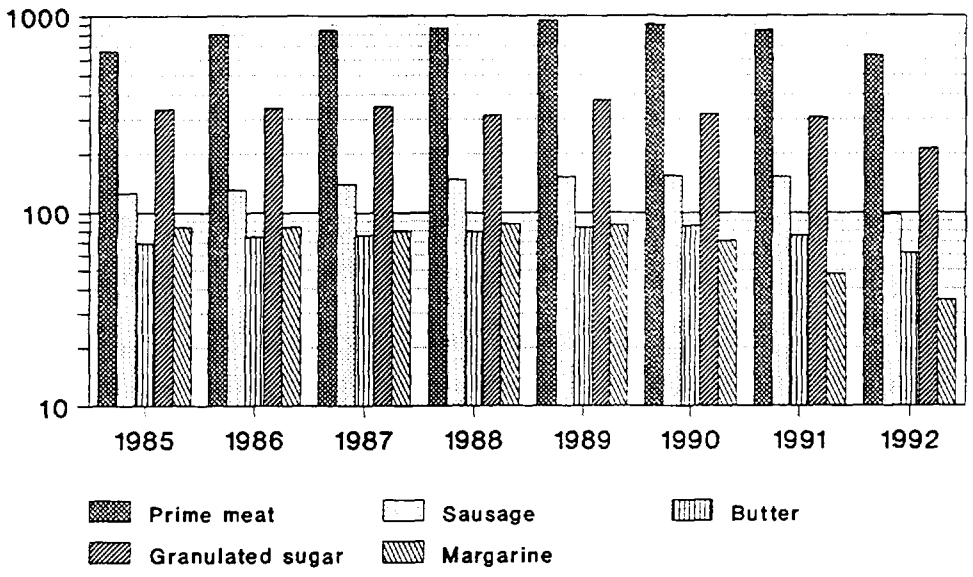
Food processing

Past trends

The agricultural and food processing industry grew modestly in overall terms during the latter half of the 1980s, although individual subsectors responded differently to the variations in the weather and differences in the availability of fertilizer and farm equipment. The output of meat and dairy products grew rapidly in 1986 and 1987, for example, but stagnated in 1990 before collapsing in 1992. Food processing was affected by drought in 1991 and dropped further in 1992.

Although no comprehensive production data are available for subsequent years, the available indicators suggest that the industry contracted further in 1993-95. Statistics published by the World Bank show that the value of the food industry's overall output declined by 31.8 per cent in real terms in 1993, with the value of processed foods declining by 28.1 per cent, the value of meat and dairy products by 24.3 per cent, and the value of processed fish by 58.6 per cent.[39/] This decline appears likely to have continued in 1994, when production of most agricultural commodities recorded a significant contraction, and in 1995, when unfavourable weather conditions and continuing economic dislocations prompted a sharp fall in grain production in particular. According to preliminary estimates, the output of grains fell to only 10 million tonnes in 1995 from 16.5 million tonnes in 1994 and 21.6 million tonnes in 1993.[40/]

Fig. 6. Kazakstan: Output of selected food products
(Thousand tonnes)



Source: State Statistics Committee.

The rehabilitation and development of agro-industry, and in particular the processing of finished food products, is high on the reform agenda of the government of Kazakstan. It has set itself the goal of establishing a solid base from which to develop an export potential for a wide range of finished products such as flour, feedstuffs, sausages, preserved meats and woollen goods to replace the existing exports of raw grain, wool and unprocessed meat.

Considerable effort has already been expended to this end. A government programme has been established under which large metallurgical enterprises with access to hard currency have funded investments in agro-based industries. In 1992, for example, the Karaganda Metallurgical Combine purchased and installed German sausage-making equipment and baking equipment with a capacity

of 2,000 loaves per day. The same combine also funded the installation of new equipment in a local brewery and drinks factory.[41/] In turn, the new or upgraded facilities earmark a portion of their output for the combine.

Research funds have also been put into the design and production of food processing equipment through cooperation agreements with a research institute in the Russian Federation. The equipment is being designed to Western standards, but sells at much lower prices. It is intended to be used by small and medium-sized enterprises in the emerging private sector.[42/]

Table 21. Kazakstan: Output of selected processed foods, 1980-92, selected years

	Units	1980	1985	1987	1988	1989	1990	1991	1992
Meat, prime quality	Thousand tonnes	608	665	848	869	946	899	846	633
Sausage	Thousand tonnes	121	126	139	147	152	155	152	97
Butter	Tonnes	60	69	76	80	83	85	76	62
Whole milk	Thousand tonnes	1,107	1,225	1,433	1,471	1,491	1,470	1,393	1,154
Sugar (powder)	Thousand tonnes	272	337	349	314	377	319	307	213
Margarine	Thousand tonnes	76	84	80	87	86	71	48	35
					Index: 1985 = 100				
		1980	1985	1987	1988	1989	1990	1991	1992
Meat, prime quality		91.3	100.0	127.4	130.5	142.2	135.0	127.1	95.1
Sausage		96.2	100.0	110.7	116.8	121.1	123.2	121.1	77.1
Butter		86.7	100.0	109.6	115.0	123.0	122.8	109.5	88.9
Whole milk		90.4	100.0	117.0	120.1	121.7	120.0	113.7	94.2
Sugar (powder)		80.6	100.0	103.4	93.2	112.0	94.7	91.0	63.2
Margarine		90.5	100.0	95.1	103.6	102.6	85.0	56.8	41.8

Source: State Statistics Committee.

Constraints and prospects

Apart from the shortage of processing facilities, the development of agro-industries in Kazakstan is constrained by the lack of bottling and other packaging industries. As is the case throughout the former USSR, the availability of glass bottles in Kazakstan has been severely reduced by the anti-alcohol campaign of the 1980s. Funds were invested in the expansion of glass bottle and jar production in 1992 and 1993 to overcome this constraint, and some facilities have begun to produce cans. The continued expansion of these industries will be necessary to support the development of the processed foods and drinks industries.

The recently resumed investment in new processing and packaging equipment has improved the prospects for the development of agro-industries in Kazakstan. The enterprises that have received such investment have already recorded good results. An example of this increased productivity is provided by the egg and poultry production association in Maykuduk, which received new equipment for the processing and packaging of poultry in late 1992, and is now able to process 6,000 chickens per hour instead of the earlier number of 3,000, with 60 fewer employees.[43/]

Food processing and other agro-related industries also represent potentially good areas for the promotion and development of private small and medium-sized enterprises, since they have manageable start-up costs and a high level of existing demand. Kazakstan has already seen the growth of some private initiative is this area, but its further development is being constrained by the delay in the privatization of agriculture. Although the sector was one of the first to be looked at for privatization purposes and preliminary plans have been drawn up, little headway has been made in implementing these plans and agriculture and agro-processing activities remain outside the national privatization programme. Once the political and legal problems are resolved, the privatization of this sphere will begin and many of the constraints now facing the sector will begin to disappear.

Food processing is also likely to see a good deal of Western investor interest. All the consumer goods industries, and especially food processing, in the countries of central and eastern Europe have attracted a large amount of Western interest and investment. Many of the companies with investments in that region have already begun to the look for potential investments further east, although internal struggles over the privatization of the sector have limited the number of investments completed.

Tobacco

Past trends

Kazakstan has traditionally been an importer of cigarettes. In 1992 the government estimated that the country's tobacco output of approximately 4,000 tonnes in that year met only about 50 per cent of the prevailing demand. As a result of this situation and the active black market in tobacco products, the government has announced plans to increase both the production and import of tobacco.

The financial realities of increasing cigarette production prompted the government to privatize the one cigarette producer in the republic in 1993. The US firm Philip Morris won the tender for the purchase of 49 per cent of the Almaty Tobacco Kombinat in September of that year, in return for agreeing to invest more than $200 million in modernizing the facility and on the assumption that the country's tobacco harvest would increase sufficiently for it to raise its production from 12 billion to 20 billion cigarettes per year. In the meantime Philip Morris has raised its stake in the enterprise to 97 per cent, and its development plans now include support for the local tobacco industry in an effort to raise production to the point of meeting the factory's demand by 1996. This is expected to result in a sufficiently large increase in cigarette production to enable cigarettes to be exported to neighbouring countries.

Constraints and prospects

Although Kazakstan's only cigarette producer has been acquired by Philip Morris, another US firm, R.J. Reynolds Tobacco International, is also investing in the tobacco industry. The firm is building a plant with an annual capacity of 6 billion cigarettes, which is to be raised to 10 billion cigarettes. The firm also plans to invest in the upgrading of local tobacco supplies, as well as the production of paper, filter and packaging materials. Its production is planned for both the local and export markets. With such comparatively high levels of foreign investment in place and the upgrading of local tobacco production under way, the outlook for the industry appears bright.

B. TEXTILES AND CLOTHING

The resource base

The textile and clothing industries are the most important light industries in Kazakstan, accounting for almost 90 per cent of light industrial output in 1992. The primary textile products are woollen and cotton goods. Kazakstan and the Kyrgyz Republic had a virtual monopoly on wool production in the former USSR, with Kazakstan alone producing approximately 60,000 tonnes per year. Because of the inter-republic specialization of production practised in the former USSR, however, only 17,000-18,000 tonnes of this wool are processed into textiles in Kazakstan.

The cotton industry follows a similar pattern to that of the wool industry, with Kazakstan being a major producer of raw cotton but possessing only a relatively small processing capacity. As increased emphasis is starting to be placed on the environmental problems facing the republic, it is unlikely that cotton production will be increased. On the contrary, it appears likely that the acreage under cotton will gradually be reduced and put to use for grazing.

Past trends

While wool and cotton have been produced in substantial quantities, the quality of the output has been relatively low. In the case of wool, much of the problem has do with the low quality of the primary processing. Efforts are already under way to upgrade the quality of local wool and increase the production of woollen goods. The country's largest textile firm, the Koteks textile combine in Kustanay, which has a large export capacity, has established its own plant for the washing and primary processing of wool supplied directly to it. It has also introduced a programme to provide financial and technical assistance to local sheep breeders to improve the quality of their wool.

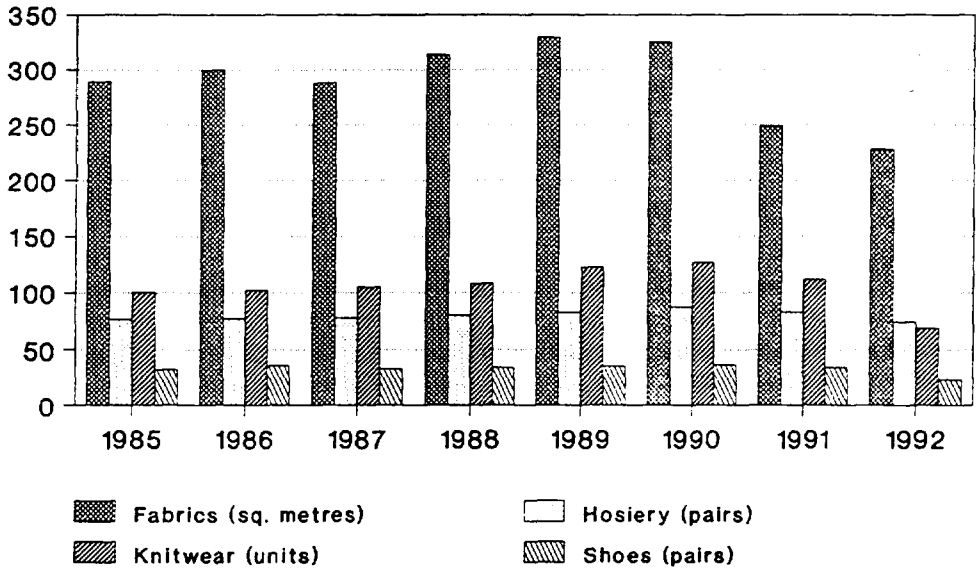
Table 22. Kazakstan: Output of selected textile goods, 1980-92, selected years

	Units	1980	1985	1987	1988	1989	1990	1991	1992
Fabrics	Million square metres	178	289	288	314	330	325	249	228
Hosiery	Million pairs	69	77	78	81	83	88	83	74
Knitwear	Million pieces	96	100	105	108	123	127	112	69
Carpets	Thousand square metres	1,722	2,384	2,236	2,343	2,235	2,234	2,103	..
					Index: 1985 = 100				
		1980	1985	1987	1988	1989	1990	1991	1992
Fabrics		61.6	100.0	99.7	108.4	114.1	112.6	86.2	79.0
Hosiery		89.9	100.0	102.0	105.0	107.7	114.4	108.4	97.0
Knitwear		95.3	100.0	105.0	107.8	122.3	126.4	111.3	68.8
Carpets		72.2	100.0	93.8	98.3	93.8	93.7	88.2	..

Source: State Statistics Committee.

Kazakstan's textile production has declined steadily since 1990, with the available data indicating a sharp fall in output of all major categories of textiles in 1991 and 1992. While disaggregated data on production volumes are not available for subsequent years, the available data indicate a sharp fall in the value of output of both textiles and clothing in 1993, with the former contracting by 67.2 per cent and the latter by 80.2 per cent in real terms. This reflects a decline in cotton production from 252,000 tonnes in 1992 to 200,000 tonnes in 1993, as well as shortages of other major inputs, such as chemicals, dyes and spare parts for machinery and equipment.

Fig. 7. Kazakstan: Output of fabrics and wearing apparel
(Thousand units as stated)



Source: State Statistics Committee.

Constraints and prospects

Apart from a shortage of existing manufacturing capacity, the textile industry faces a lack of private domestic retail outlets for its products, which is forcing several clothing manufacturers to establish their own retail shops. This is exemplified by the case of the AKhBK textile enterprise, which was privatized in 1992 by an employee purchase and has had to establish its own retail network due to conflicts with the old state system of retail shops. While the state stores were marking up prices by 40 per cent and claiming little demand, AKhBK was convinced that its high quality cotton products would have a high sales potential. It therefore decided to bypass the state retail system altogether, and now sells directly to clothing manufacturers and to the public.

As noted above, Kazakstan has traditionally been a net importer of textiles and clothing. In 1991 the country's imports of textiles and textile products amounted to Rb557,387 million, while its exports amounted to only Rb55,205 million. The considerable excess in domestic demand over supply for these goods, coupled with Kazakstan's strong resource base, augurs well for the future development of the industry.

C. LEATHER AND FOOTWEAR

The resource base

With a substantial animal husbandry sector, Kazakstan is well endowed with hides and skins, the most important resource material for a successful footwear and leather goods industry. The country also produces some other basic inputs for the manufacture of footwear and leather products, including synthetic rubber and artificial fibres.

Past trends

Kazakstan has not been a major producer of leather goods or footwear, but has seen a fair amount of interest in recent years from foreign investors. Businessmen from China have invested in a project to process sheepskins and produce sheepskin clothing, while Turkish investors have entered into a joint venture to process sheep and cattle hides and produce leather clothing. Meanwhile, Greek investors have also established a breeding facility for mink and polar fox, as well as for geese for down products.

Like most other branches of manufacturing industry, the leather and footwear industries have also suffered a sharp decline in production in recent years. The available data indicate a fall in output from a peak of almost 36.5 million pairs of shoes in 1990 to only about 23.2 million pairs in 1992. In 1993 the industry contracted further, with the value of its output dropping by 24.3 per cent in real terms. More recent data on the value of output, which are only available in current prices, indicate an eightfold increase in nominal terms in 1994. This implies a further decline in real terms, in view of an average inflation rate of 1,900 per cent during this period.

Table 23. Kazakstan: Output of footwear, 1980-92, selected years
(Thousand pairs)

1980	1985	1987	1988	1989	1990	1991	1992
30,199	32,262	32,735	34,083	35,189	36,464	34,051	23,200
			Index:	1985 = 100			
93.6	100.0	101.5	105.6	109.1	113.0	105.5	71.9

Source: State Statistics Committee.

Constraints and prospects

In view of the country's raw material resources and the relatively high degree of foreign investment interest witnessed during the past few years, the overall outlook for Kazakstan's leather-based industries appears promising. Moreover, with much of the investment attracted by these industries having been channelled into export-oriented production, they also appear to have good prospects for penetrating foreign markets. A variety of constraints clearly remain, however, including the need to improve the quality standards of locally processed raw materials, the need to import

higher quality inputs where local materials of an adequate quality are not available, and the need to develop a design capability for the production of goods that can meet international tastes and fashion requirements.

D. PETROLEUM AND GAS REFINING

The resource base

Kazakstan has extensive deposits of crude oil and natural gas, with proven deposits amounting to 2 billion tonnes of oil and 1,100 billion cubic metres of gas. Conservative estimates suggest that the country's total reserves could be as high as 3.5 billion tonnes of oil and 2 trillion cubic metres of gas. Despite these reserves, however, Kazakstan has not so far been a major producer of hydrocarbons, mainly because of the inter-republic specialization of production practised in the former USSR.

The country also possesses large deposits of high-viscosity crude and natural bitumens that may exceed the reserves of conventional crudes by several times. These heavy crudes contain vanadium, platinum, gold, rhenium, silver and hetero-organic compounds. Unlike the lower-viscosity crudes, which are located primarily in deep fields in the Tengiz region, these deposits are located in fairly shallow areas of quartz sand.

Past trends

Despite its substantial hydrocarbon resources, Kazakstan only has a modest oil and gas refining industry. This has been due to the policy pursued by the former USSR of integrating the economy on a union-wide basis rather than a republican basis. As a result, most of the country's current oil production originates from deposits in the western regions of Atyrau, Mangistau, Uralsk and Atyubinsk, while only one of its three oil refineries is located in the west of the country at Atyrau. The other two refineries are located at Pavlodar and Chimkent in the east of the country, which has few producing fields of its own and is not connected by pipeline to the west.

Because of the lack of an internal pipeline, the bulk of Kazakstan's oil output is shipped to Russian refineries in the Urals, while the Pavlodar and Chimkent refineries receive their raw material supplies from western Siberia through the Omsk pipeline. The petroleum trade between the Russian Federation and Kazakstan is conducted on a barter basis, however, as a result of which Kazakstan's supplies of crude oil for its eastern refineries are dependent on Russia's demand for crude from Kazakstan's western oilfields. When the Russian refineries' demand for Kazak crude declines, Russia delivers less crude to Kazakstan's refineries.

This high dependence on the Russian Federation as a supplier of raw material has left Kazakstan's petroleum refining industry highly vulnerable to supply disruptions and price fluctuations. All three of Kazakstan's refineries are reported to have operated well below capacity in 1995, with the Chimkent refinery having had to be shut down for a month from mid-August to mid-September because of a shortage of crude oil. In order to overcome these difficulties, the government has announced plans for the construction of a pipeline linking the country's eastern and western regions.

The production of oil in Kazakstan increased only modestly over the latter half of the 1980s, from 22.8 million tonnes (approximately 455,000 barrels per day) in 1985 to 25.8 million tonnes (515,000

barrels per day) in 1992. Since then, however, production of both oil and natural gas has slipped sharply as a result of the economic dislocations within both Kazakstan itself and the Russian Federation. By 1994 the output of crude oil had fallen to 20.3 million tonnes (401,000 barrels per day), while production of natural gas had declined to 4,430 million cubic metres. The available preliminary data indicate a further decline in 1995, although a number of significant foreign investment proposals announced during the year suggest that the situation is likely to improve in the foreseeable future.

Table 24. Kazakstan: Production of crude oil and natural gas, 1980-94, selected years

	Units	1980	1985	1990	1991	1992	1993	1994
Oil	Million tonnes	..	22.8	25.8	26.6	25.8	23.0	20.3
Natural gas	Billion cubic metres	4.3	5.5	7.1	7.9	8.1	6.7	4.5

Source: State Statistics Committee.

Constraints and prospects

Following the dissolution of the former USSR, Kazakstan has begun to look to the West for investment into its oil and gas sector, and for alternative markets for its output. The country has already attracted considerable Western investor interest and funds, with particularly large commitments having been made by the US firms Chevron and Exxon, and a consortium comprising British Gas and the Italian firm Agip. An important pipeline project to link the Tengiz oil fields with the Russian Black Sea port of Novorossisk has also been initiated. Once these investment projects are completed by 2000, Kazakstan's production of crude oil and natural gas could rise to 800,000 barrels per day and 22,000 cubic metres per day respectively.

E. CHEMICALS AND PETROCHEMICALS

The resource base

Kazakstan's vast hydrocarbon resources provide the country with a strong base for the development of a petrochemical industry. The availability of large deposits of phosphates have also facilitated the emergence of a mineral fertilizer industry. In addition, the country also produces a variety of agricultural products that can be used as raw materials for the pharmaceutical industry.

Past trends

Kazakstan has a well-developed chemical industry, which accounted for 18 per cent of the country's exports at the time of its independence in 1991. In line with its favourable resource base, the country's production has centred on mineral fertilizers, sulphuric acid, artificial fibres and synthetic rubber. During the 1980s the output of sulphuric acid grew by 30 per cent, but it subsequently

declined by 26 per cent between 1990 and 1992. Production of chemical fertilizers grew by about 20 per cent between 1985 and 1988 before gradually declining and ultimately collapsing in 1992 due to a shortage of raw materials. Similarly the output of artificial fibres and synthetic rubber stagnated and then collapsed in 1991. Prompted largely by the declining output of crude oil and natural gas, the production of chemicals continued to fall in subsequent years. According to the latest available data, the value of the chemical and petrochemical industry's output declined by 26.9 per cent in real terms in 1992 and by a further 19.1 per cent in 1993.

While the production of bulk chemicals has been emphasized in the past, increased attention has begun to be paid in recent years to the diversification of the industry and the increased production of downstream products. This has resulted in measures to develop a capacity for the production of plastics, and to encourage the production of a wide range of consumer chemicals, including soap, shampoo, paint stripper, adhesives, fly spray, bleach and stain removers.

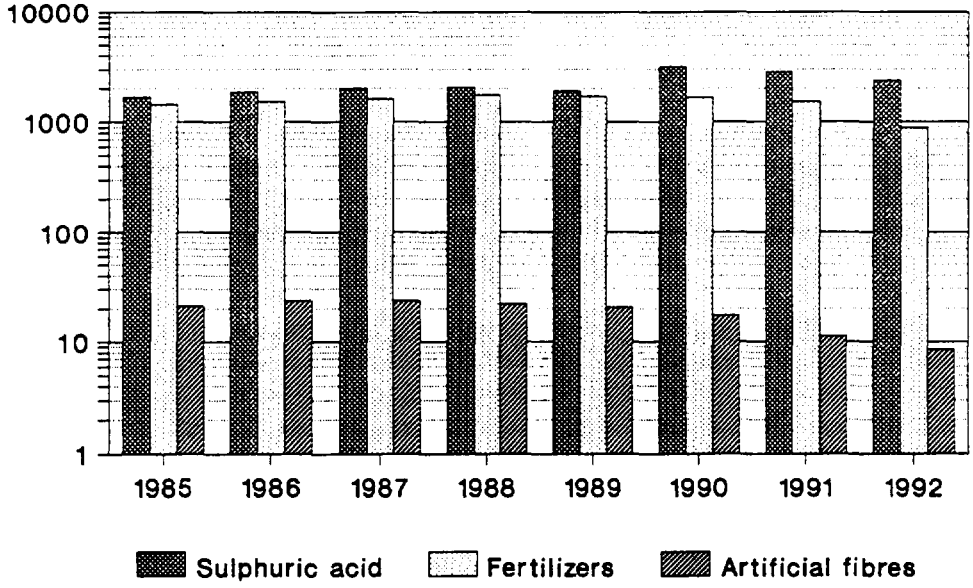
The further development of the pharmaceutical industry is also being targeted by the government. While still a constituent republic of the former USSR, Kazakstan was a significant producer of intermediate pharmaceutical chemicals. More recently, the government has established a new pharmaceutical combine, Kazfarmbioprom, in the town of Chimkent to produce branded medicines and take advantage of domestic raw materials. Its members include producers of pharmaceuticals, state farms, the medical materials department of a meat combine, a dairy factory, ginseng enterprises and a liquorice producer. A major objective of the programme involves the installation of packaging facilities for finished pharmaceuticals in the country's existing enterprises.

Table 25. Kazakstan: Production of chemicals and petrochemicals, 1980-92, selected years

	Units	1980	1985	1987	1988	1989	1990	1991	1992
Sulphuric acid	Thousand tonnes	1,891	1,671	2,008	2,063	1,896	3,151	2,815	2,349
Fertilizers	Thousand tonnes	1,262	1,430	1,603	1,737	1,705	1,656	1,516	880
Artificial fibres	Tonnes	19,268	21,007	23,352	21,834	20,568	17,406	11,280	8,500
Synthetic rubber	Tonnes	34,381	33,205	34,269	34,363	33,438	31,950	25,614	..
Tyres	Thousand units	..	1,452	..	..	..	2,633	3,029	2,880
					Index: 1985 = 100				
		1980	1985	1987	1988	1989	1990	1991	1992
Primary oil processors		81.8	100.0	130.4	126.5	132.2	128.3	129.3	..
Sulphuric acid		113.2	100.0	120.2	123.5	113.5	188.6	168.5	140.6
Fertilizers		88.3	100.0	112.1	121.5	119.2	115.8	106.0	61.5
Artificial fibres		91.7	100.0	111.2	103.9	97.9	82.9	53.7	40.5
Synthetic rubber		103.5	100.0	103.2	103.5	100.7	96.2	77.1	..
Tyres		..	100.0	..	..	..	181.3	208.6	198.3

Source: State Statistics Committee.

Fig. 8. Kazakstan: Output of selected chemicals
(Thousand tonnes)



Source: State Statistics Committee.

Constraints and prospects

In view of its favourable resource base and well developed existing facilities, the prospects for the further development of Kazakstan's chemicals industry remain encouraging. This is particularly true of the petrochemicals industry, which will benefit from the anticipated expansion of domestic production and of the refining of oil and natural gas. As indicated by several recently signed joint-venture agreements for the production of plastics, *inter alia*, with French and Israeli firms, the industry is also likely to attract substantial interest from foreign investors.

F. CONSTRUCTION MATERIALS

The resource base

Along with its immense wealth of hydrocarbons and metals, Kazakstan is also endowed with an abundance of non-metallic minerals used in the production of construction materials. These include limestone, quartz sand, clay, soda, asbestos, and a variety of granite and marble stones.

Past trends

Despite its favourable raw material base, the construction materials industry in Kazakstan has remained very small, largely as a result of the policies of inter-republic specialization pursued by the authorities of the former USSR. The country consequently inherited few facilities for the production of construction materials at the time of its independence, having previously relied

heavily on supplies from other republics of the former USSR. Until 1992, for example, the republic produced no glass.

The dissolution of the former USSR and the resulting collapse in inter-republic trade had a particularly severe impact on the availability of building materials and contributed to a sharp contraction of the construction sector. While the overall reduction in the volume of work completed by the construction industry was estimated at about 6 per cent in 1992, it was reported that only 30 of the 57 top priority projects scheduled for that year were completed because of the shortage of construction materials.[44]

The collapse in the supply of building materials in the early 1990s forced the government of Kazakstan to give urgent priority to the development of the country's own production capacity for these goods. This resulted in 1992 and 1993 in the establishment of several new facilities for their production, including two factories for the manufacture of clay bricks, a facility for the production of prefabricated wall panels, and a window-glass factory. In addition, a consortium was formed by a group of industrial enterprises to develop the soda and glass industry through the mining of glass sand and the construction of a sheet glass plant and a soda factory with a capacity of 540,000 tonnes per year.

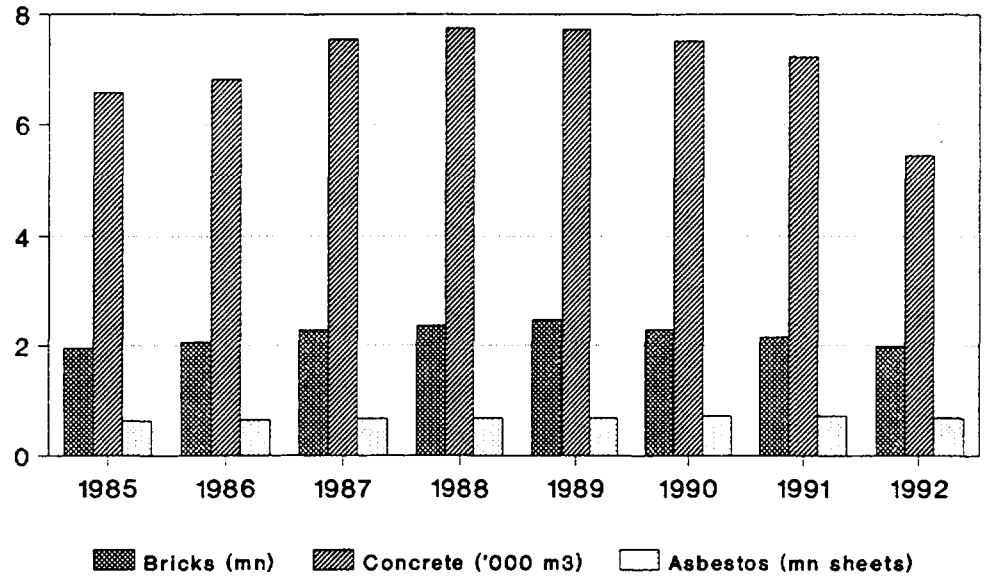
In spite of these efforts, however, the total output of construction materials has declined steadily since the early 1990s. The latest available disaggregated data suggest a significant fall in the production of all major construction materials, including cement, bricks and ferro-concrete, in 1990-92. Subsequent data on the value of the industry's output indicate a further decline by 28.2 per cent in real terms in 1993.

Table 26. Kazakstan: Output of construction materials, 1980-92, selected years

	Units	1980	1985	1987	1988	1989	1990	1991	1992
Cement	Thousand tonnes	..	7,549	..	..	..	8,301	7,575	6,436
Bricks	Million pieces	1,989	1,947	2,268	2,354	2,468	2,285	2,146	1,971
Ferro-concrete construction	Thousand square metres	6,067	6,575	7,535	7,747	7,717	7,504	7,221	5,450
Asbestos sheets	Million pieces	591	643	668	681	691	722	721	688
					Index: 1985 = 100				
		1980	1985	1987	1988	1989	1990	1991	1992
Cement		..	100.0	..	..	..	109.9	100.3	85.2
Bricks		102.2	100.0	116.5	120.9	126.8	117.4	110.2	101.2
Ferro-concrete construction		92.3	100.0	114.6	117.8	117.4	114.1	109.8	82.9
Asbestos sheets		91.8	100.0	103.9	105.9	107.4	112.3	112.1	107.0

Source: State Statistics Committee.

Fig. 9. Kazakstan: Output of selected building materials
(Volume in units as indicated)



Source: State Statistics Committee.

Constraints and prospects

There is no lack of demand for construction materials in Kazakstan. Local production cannot meet the demand of the housing sector, let alone the growing demand for the construction of office buildings, hotels and other facilities to support Western investment and the expected growth of the economy. This strong demand, coupled with Kazakstan's strong raw material base, augurs well for the future development of the building materials industry.

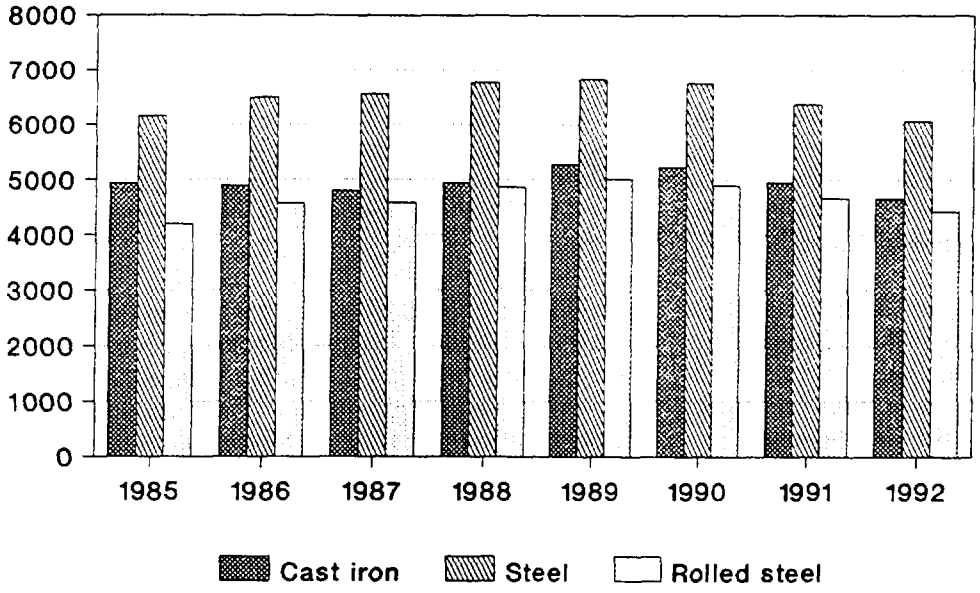
Kazakstan's abundant but hitherto unexploited reserves of wollastonite, which is used in the production of ceramics and plastics, have also attracted considerable interest in the recent past. The government's decision to export it in the form of locally processed concentrate rather than unprocessed ore will also support the further development of the country's construction materials industry.

G. FERROUS AND NON-FERROUS METALLURGY

The resource base

Kazakstan possesses vast deposits of metallic ores, including barite, beryllium, bismuth, cadmium, chromite, copper, gold, iron, lead, magnesium, molybdenum, rhenium, silver, titanium, tungsten, uranium and zinc. The country is already a major producer of copper, gold, lead, silver and zinc, with more than 50 deposits, several of which are of world standard, being mined at present.

Fig. 10. Kazakstan: Output of selected metallurgical products
(Thousand tonnes)



Source: State Statistics Committee.

Precious metals

Past trends

Kazakstan was the third largest producer of gold in the former USSR, and in 1991 accounted for about 50 per cent of all of its silver production. The country's most important gold mine, at Bakyrchik, is one of the world's largest deposits of gold. The domestic processing of gold has been centred at the Ust-Kamenogorsk and Balkhashmed metallurgical combines, which are capable of producing gold ingots for the republic's own financial reserves.

In 1991 the government established a state gold and diamond fund (Altynalmaz) charged with the task of increasing the country's output of gold. Together with the National Bank of Kazakstan, Altynalmaz has designed a programme aimed at quadrupling gold production by 1997. Several new deposits have been identified and new gold treatment plants have been commissioned at the Ust-Kamenogorsk, Chimkent and Leninogorsk metallurgical plants. This additional output is intended to provide the basis for an increase in the industrial use of gold and for the development of an export-oriented jewellery industry, as well as increasing the country's gold reserves and supporting its currency.[45/]

Constraints and prospects

The outlook for the precious metals industry in Kazakstan is bright. This is especially true for gold, with Altynalmaz already having attracted foreign investment in the form of a joint venture with the Australian firm Minproc Resources and the US firm Chilewich International Corporation to develop the Bakyrchik mine. This venture is listed on the London Stock Exchange.

Non-ferrous metals

Past trends

Kazakstan is one of the world's leading five producers of newly mined lead and zinc, and ranks seventh in the world in the production of copper, with an annual output of more than 200,000 tonnes from 17 active deposits. The largest copper mining complex, located in Dzhezkazgan, has been mined for several years and has an ore grade of 1 per cent copper. With the volume of exports having risen from 35,000 tonnes to 115,000 tonnes between 1987 and 1992, the country now exports more than half of its output. The most important processing enterprises include an aluminium plant at Pavlodar, a copper smelter at Balkhashmed, and an ore-dressing plant at Zhairem in the south-east of the country.

In recent years the metal-based industries have suffered from the increase in raw material prices charged by the mining industry. With their increased autonomy, the mining enterprises have been exporting their ore at world prices rather than selling it to local metallurgical enterprises at the much lower prices prevailing before Kazakstan's independence and the introduction of market-oriented economic reforms. According to the mining industry, such sales at discounted prices would only be possible if the mining firms were given large government subsidies.

In response to these developments, the government announced the allocation of special funds to the metallurgical industry in 1993 as part of its priority programme. These funds are to be used for the development of Kazakstan's non-ferrous metal ore resources in cooperation with mining enterprises. New mining and production enterprises are to be established, and the profits generated by them are to be shared. Efforts are also being made to attract foreign capital and technology into the processing industry, with management contracts having been awarded to a number of foreign firms.

Constraints and prospects

As noted above, Kazakstan has traditionally been a producer and exporter of raw or semi-processed minerals. The existing processing facilities are very limited, and almost none of the country's resources are turned into finished goods domestically. The Ust-Kamenogorsk lead mine and smelter has hitherto exported most of its output to Russia. Only 56,000 tonnes of lead and 73,000 tonnes of zinc are exported to countries outside the former USSR, and the increased penetration of Western markets will be an important prerequisite for the expansion of the non-ferrous metallurgy industries. While the outlook for these industries is consequently good because of the country's rich resource base, substantial further investment will be required before Kazakstan can achieve its goal of becoming an important exporter of finished goods from the metallurgical industries. In the meantime, however, the export of the raw materials will finance the development of the processing plants.

Ferrous metallurgy

Past trends

The production of both iron ore and cast iron fell significantly between 1990 and 1992, from 23.8 million tonnes to 17.7 million tonnes and from 5.2 million tonnes to 4.7 million tonnes respectively. The two largest mining operations in the country are in Sokolovskoe and Sarbaiskoe in the north. Their output is delivered to the Russian Federation and to the Karaganda Metallurgical Combine (Karmet) in the country's second largest city, Karaganda. Although the Karmet facility is the

second-largest steelworks in the former USSR and still accounts for 10 per cent of Kazakstan's GDP, domestic production of steel and finished steel goods is limited, with the country having traditionally relied on imports from the Russian Federation.

Table 27. Kazakstan: Output of ferrous metals, 1980-92, selected years
(Thousand tonnes)

	1980	1985	1987	1988	1989	1990	1991	1992
Iron ore	25,763	22,977	24,224	24,342	23,764	23,846	21,993	17,700
Cast iron	4,710	4,932	4,797	4,940	5,279	5,226	4,953	4,666
Steel	5,967	6,155	6,555	6,766	6,831	6,754	6,377	6,063
Rolled steel	4,114	4,182	4,580	4,874	5,011	4,899	4,660	4,426
				Index:	1985 = 100			
	1980	1985	1987	1988	1989	1990	1991	1992
Iron ore	112.1	100.0	105.4	105.9	103.4	103.8	95.7	77.0
Cast iron	95.5	100.0	97.3	100.2	107.0	106.0	100.4	94.6
Steel	96.9	100.0	106.5	109.0	111.0	109.7	103.6	98.5
Rolled steel	98.4	100.0	109.5	116.6	119.8	117.2	111.4	105.8

Source: State Statistics Committee.

Constraints and prospects

A major constraint facing the ferrous metal industry in Kazakstan is that the existing mines are only marginally profitable at the depressed metal prices prevailing at present. A substantial amount of investment would be needed to modernize production methods and raise standards to world levels. The sector has been relying on the use of toll contracts to keep production going at its largest smelters, but their continuation cannot be guaranteed.

The problems faced by the mines are exacerbated by the limited and technologically dated processing capacity in the country. The future of the ferrous metals industry will thus depend upon its ability to restructure itself, which will itself depend on the availability of funds for that purpose. Since much of the industry's output is exportable for foreign exchange, however, its rehabilitation and modernization may be largely self-financing. Recognising the industry's longer-term potential, the London-based Ispat International Steel Group has agreed to invest almost $1 billion in the Karmet plant to rehabilitate and modernize its production facilities.

H. MACHINERY AND ENGINEERING

The resource base

The relatively limited development of the primary metal processing industries in Kazakstan has hindered the emergence of a domestic input supply network for Kazakstan's engineering industries.

The country has consequently depended heavily on imports, especially from the Russian Federation and other republics of the former USSR, for such inputs, including long steel products and most non-ferrous metal products. Most of the more sophisticated electronic components and the machine tools required by the engineering industries have also had to be imported.

Machinery and equipment

Past trends

The development of Kazakstan's engineering industries was determined by the central planning authorities according to the principles of inter-republic specialization. Thus, although the country has emerged as a significant producer of tractors, bulldozers, excavators and agricultural machinery, it has historically been a major importer of most other forms of machinery and transport equipment. Except for tractors, which it exported, the republic has relied heavily on other republics of the former USSR for these items. The production of machine tools, excavators and bulldozers has contracted sharply in recent years, moreover, to 17-57 per cent of its 1985 level by 1992, and the total value of the machine building and metallurgy sector's output was reported to have declined by a further 16.7 per cent in real terms in 1993.

Table 28. Kazakstan: Output of machinery and transport equipment, 1980-92, selected years
(Units)

	1980	1985	1987	1988	1989	1990	1991	1992
Metal cutting machine tools	3,017	2,828	2,155	2,214	2,307	2,578	2,389	1,629
Excavators	1,803	1,877	1,045	570	578	710	618	312
Bulldozers	8,863	13,670	15,220	14,810	15,308	13,328	10,288	3,456
Tractors	..	..	..	..	..	..	34,131	..
Agricultural machinery[a/]	212	366	399	323	229	215	356	4,680

Index: 1985 = 100

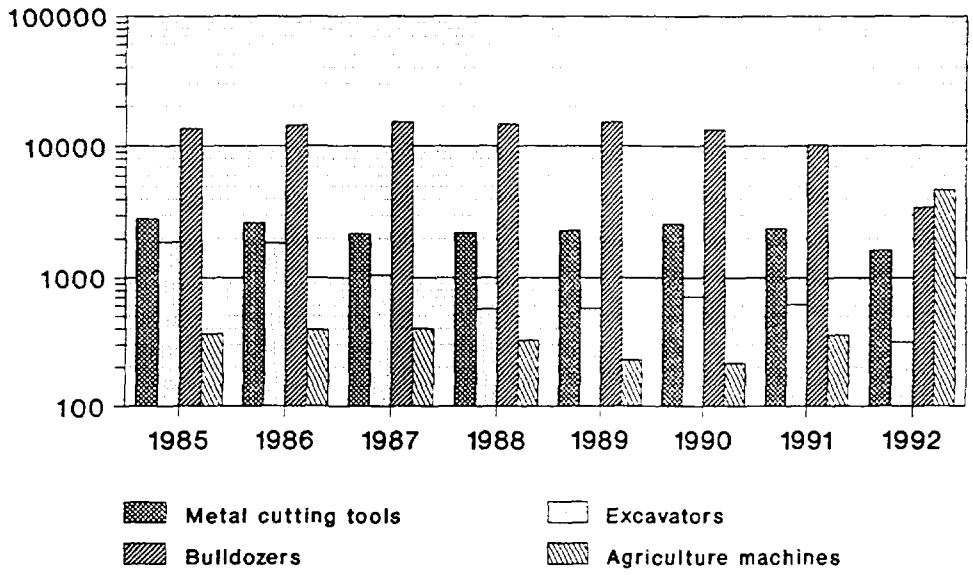
	1980	1985	1987	1988	1989	1990	1991	1992
Metal cutting machine tools	105.9	100.0	75.7	77.7	81.0	90.5	83.9	57.2
Excavators	96.1	100.0	55.7	30.4	30.8	37.8	32.9	16.6
Bulldozers	64.8	100.0	111.3	108.3	112.0	97.5	75.3	25.3
Agricultural machinery[b/]	58.0	100.0	109.0	88.2	62.5	58.7	97.2	1,278

Source: State Statistics Committee.

a/ Million roubles.
b/ Calculated on change in rouble value of production.

Since 1992 several foreign investors have expressed an interest in establishing automotive assembly plants for passenger cars, buses and trucks in Kazakstan. They include the Italian firm Fiat, the Japanese firms Honda and Toyota, the German firm Mercedes-Benz, and the Czech firm Desta. Several local enterprises have begun to produce their own automotive spare parts in response to shortages from the Russian Federation and the other republics of the former USSR. The shortage of foreign exchange with which to purchase oil drilling and other equipment from Azerbaijan has led to calls for the development of a local oil equipment industry.

Fig. 11. Kazakstan: Output of selected machinery and equipment
(Units)



Source: State Statistics Committee.

Constraints and prospects

The biggest constraint facing the future development of the machine building and transport equipment industries in Kazakstan is the cost of entry into the market, since the development of these industries requires substantial capital investment. When the economy begins to show signs of recovery, however, it is likely that foreign motor manufacturers will increase their interest and will begin to commit funds to the development of an automotive industry, as they have in central Europe.

At the same time, however, it is unlikely that the development of a local industry for the production of such highly complex and specific machinery as oil production equipment will make much economic sense in view of the high level of expertise and existing capacity prevailing in the neighbouring republic of Azerbaijan. Kazakstan's foreign partners will have the hard currency required to purchase such equipment and, once the oil revenues begin to flow, so will the local oil companies.

The decline in the average size of farms which will occur as a result of the privatization of the sector could have an important impact on the development of the agricultural machinery industry. This has already influenced thinking and planning within the industry, with one enterprise having developed a small three-wheeled tractor for use on smaller plots.

Consumer goods

Past trends

In common with all of the countries of the former Council for Mutual Economic Assistance (CMEA) and the former USSR, Kazakstan has historically suffered severe scarcity of consumer goods, and has a high backlog of unfulfilled demand. Even despite the severe erosion of incomes resulting from the economic contraction that many of these countries have experienced in the early stages of the transition process, the demand for basic consumer goods and many luxury items has remained strong. In Kazakstan the situation has been exacerbated by the fact that the country produced almost no consumer goods itself, and was dependent on imports for the few items that were available.

Table 29. Kazakstan: Output of consumer goods, 1980-92, selected years
(Thousands of units)

	1980	1985	1987	1988	1989	1990	1991	1992
Washing machines	175	183	177	166	264	367	391	370
Tape recorders	78	124	138	150	162	201	131	114
				Index:	1985 = 100			
	1980	1985	1987	1988	1989	1990	1991	1992
Washing machines	95.6	100.0	96.5	90.7	144.2	200.4	213.4	201.7
Tape recorders	62.9	100.0	111.4	121.1	130.5	161.4	105.2	91.9

Source: State Statistics Committee.

From the early stages of the reform programme, the government of Kazakstan began to promote the production of consumer goods, both durables and non-durables, by the large metallurgical enterprises which had access to hard currency. Under this scheme, the enterprises that were permitted to keep 50 per cent of their foreign exchange earnings were required to invest a portion of those funds in the production of consumer goods and food products, sometimes in partnership with foreign investors. These measures, which were intended not only to enable Kazakstan to meet the existing demand for consumer goods but also to maintain employment, have been comparatively successful, and have resulted in a significant increase in the domestic production of consumer goods.

The range of consumer goods manufactured in Kazakstan now includes refrigerators, kitchen appliances, washing machines, juicers, vacuum cleaners, household radiators, sewing machines, personal stereos, CD players and watches. Efforts have also been made to convert military

production to consumer goods, with one such project involving the production of irons by a chemical fibre enterprise that had been supplying missile components. A particularly important development arising from this shift to the production of consumer goods has been the emergence of a small but thriving electronic components manufacturing industry, which is producing a wide range of products and is anticipated to form the basis for a major new industry.

Constraints and prospects

The resource base of Kazakstan imposes no significant constraints on the development of a consumer goods industry. While the limited and imbalanced industrial infrastructure of the country may pose a problem in the short term, it is almost certain to be overcome in the medium term as the high level of domestic demand for consumer goods attracts new investments into the industry. Foreign investors from a number of countries have already expressed an interest in entering this market, and have formed joint ventures with several metallurgical combines to produce such consumer goods as television sets, refrigerators, vacuum cleaners, compact disc players and microwave ovens.

Perhaps the greatest constraint Kazakstan will face in the development of its consumer goods industry is the inadequacy of the marketing, sales and service support structure for locally produced goods. As more and more retail enterprises are privatized and the state distribution system shrinks, manufacturers of consumer goods will have to establish marketing teams to ensure that their goods are placed on the shelves of the newly privatized retail shops. Although these skills are not readily available in Kazakstan at present, experience in central Europe has shown that they can be transferred relatively easily by Western investors.

The establishment of customer service centres and the development of a service-oriented attitude geared towards meeting customers' needs and ensuring customer satisfaction and loyalty may not be as easy to transfer. While the concept of after-sales service was almost unknown under the previously prevailing system, commercial success in the new environment will depend on the ability of consumer goods manufacturers to retain their customers as repeat buyers. This will require adherence to strict quality standards, and the creation of a pool of helpful and polite enterprise representatives.

NOTES TO CHAPTER ONE

1/ Until the mid-1920s the Kazaks were called Kirghiz by the Russians in order to distinguish them from the unrelated Cossacks.

2/ Europa Publications Ltd, *The Europa World Yearbook 1993,* London, 1993, p. 1637.

3/ The Economist Intelligence Unit, *Country Report: Kazakstan, 4th Quarter 1995,* London, 1995; and *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

4/ According to the deputy chairman of the High Economic Council, B. Izeleuov, almost one-third of the republic's trade was conducted by barter in 1991.

5/ The Economist Intelligence Unit, *Country Profile: Kazakstan, 1995-96,* London, 1996.

6/ The Economist Intelligence Unit, *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

7/ According to the IMF, the difference between the rise in consumer and wholesale prices is accounted for by the fact the largest increases in the wholesale price index were associated with goods produced for the export market, and thus had a low weighting in the consumer price index.

8/ The Economist Intelligence Unit, *Country Report: Kazakstan, 3rd Quarter 1995,* London, 1995.

9/ The Economist Intelligence Unit, *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

10/ The Economist Intelligence Unit, *Country Profile: Kazakstan, 1995-96,* London, 1996.

11/ World Bank, *World Development Report,* Washington DC, 1994.

12/ Reuters News Service, 15 April 1994.

13/ World Bank, *Kazakhstan: Economic Report,* Washington DC, 7 July 1994, Annex Table 7-7.

14/ International Monetary Fund, *Economic Review: Kazakhstan,* Washington DC, June 1993, p. 13.

15/ Foreign Broadcast Information Service, Central Asia, Washington DC, 24 January 1995, p. 57.

16/ Europa Publications Ltd, *The Europa World Yearbook 1993,* London, 1992, p. 1645.

17/ World Bank, *Kazakhstan: Economic Report,* Volume II, Washington DC, 7 July 1994, p. 32.

18/ The Economist Intelligence Unit, *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

19/ The Economist Intelligence Unit, *Country Report: Kazakstan, 1st Quarter 1996,* London, 1996.

20/ World Bank, *Kazakhstan: Economic Report,* Volume II, Washington DC, 7 July 1994, p. 42.

21/ In 1994 import licences were required for industrial waste, fertilizers, agricultural pesticides and herbicides, baby food, explosives and some medicines.

22/ *The Daily Telegraph,* "Kazakhstan: Poisoned Red legacy - Russia has Left Problems over Pollution and Nuclear Arms", London, 21 March 1994.

23/ Europa Publications Ltd, *Eastern Europe and the Commonwealth of Independent States,* London, 1992, p. 465.

24/ After several subsequent reorganizations, the GKI was split into a state committee for privatization and a state committee for the management of state property in March 1995.

25/ The Economist Intelligence Unit, *Business Report: Kazakstan, 1st Quarter 1996,* London, 1996.

26/ Chance, Clifford, *Russia and the Other States of the CIS Newsletter,* October 1994, p. 4.

27/ Chance, Clifford, *Russia and the Other States of the CIS Newsletter,* May 1995, p. 14.

28/ The Economist Intelligence Unit, *Business Report: Kazakhstan, 2nd Quarter 1994,* London, 1994.

29/ World Bank, *Kazakhstan: The Challenge of Economic Development,* draft report, Washington DC, 1992, p. 23.

30/ Izeteleuov, B., deputy chairman of the High Economic Council, *Economic Transformations in the Republic of Kazakhstan: State, Objectives, Problems and Perspectives,* Speech to the Conference on Economic Consequences of Soviet Disintegration, Vienna, April 1992.

31/ World Bank, *Kazakhstan: Economic Report,* Washington DC, 7 July 1994, pp. 18 and 53.

32/ World Bank, *Kazakhstan: Economic Report,* Washington DC, 7 July 1994, p. 3.

33/ *Keesing's Record of World Events,* News Digest for November 1993, p. 39738.

34/ *Keesing's Record of World Events,* News Digest for April 1994, p. 39961.

35/ The Economist Intelligence Unit, *Business Report: Kazakstan, 1st Quarter 1996,* London, 1996.

36/ Chance, Clifford, *Russia and the Other States of the CIS Newsletter,* April-June 1994, p. 4.

37/ International Monetary Fund, *Economic Review: Kazakhstan,* June 1993, p. 13.

38/ The OECD Register is a primary source of information with respect to technical assistance to the countries of central and eastern Europe and the former USSR. Reporting to the Register is on a voluntary basis, as a result of which the information contained is incomplete. In particular, it does not cover assistance provided by a number of multilateral donor agencies.

39/ World Bank, *Statistical Handbook 1995 – States of the Former USSR,* Washington DC, 1995.

40/ The Economist Intelligence Unit, *Business Report: Kazakstan, 1st Quarter 1996,* London, 1996.

41/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, February 1992.

42/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, January 1993.

43/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, February 1993.

44/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, February 1992.

45/ *Mining Journal,* "Kazakhstan – Massive mineral endowment: important opportunities", Country Supplement, London, 11 March 1994.

CHAPTER TWO: THE KYRGYZ REPUBLIC

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

The historic and Soviet periods prior to 1991

The nomadic Kyrgyz were ruled by various Turkic people until 1685 when the region was conquered by the Mongol Oirots. The Oirots were in turn defeated by the Manchus in 1758 which left the region nominally subject to China, although there was little interference in the nomadic lives of the Kyrgyz people by the Chinese authorities. In the early 19th century the area came under the overlordship of the Khanate of Kokand and was formally incorporated into the Russian Empire in 1876.

Following the October Revolution in Russia and the civil war, the Turkestan Autonomous Soviet Socialist Republic (ASSR), which included Kyrgyzstan, was established in 1918. In 1924 the territory of Kyrgyzstan was separated from the Turkestan ASSR and attached to the Russian Soviet Federation of Socialist Republics as the Kara-Kyrgyz Autonomous Region.[1/] In 1925 the prefix Kara was dropped from the name, and in 1926 the territory became an autonomous republic. In 1936 it took the status of a full union republic and became the Kyrgyz Soviet Socialist Republic. In 1993 the country's parliament changed the name to the Kyrgyz Republic.

The consolidation of Soviet power in the early 1920s gave rise to the social and economic development of the region along Soviet lines. This resulted in the increased establishment of educational facilities, an improvement in the level of literacy, and the adoption of a standard literary language. It also led to the introduction of land reforms in the 1920s and the collectivization of land in the 1930s, which in turn led to the settlement of the Kyrgyz population.

The process of industrialization began in the 1930s, and was associated with the immigration of large numbers of Russian-speaking people, who played a dominant role in operating and managing the industrial enterprises in the republic until the 1960s. Russian speakers continue to dominate the industrial workforce and play a large role in enterprise management to this day. With the shift in official interest and investment to the west Siberian oil producing areas from the 1970s onwards, however, investment flows into Kyrgyzstan fell and the economy began to stagnate.

The period since 1991

The Kyrgyz Republic has suffered a significant economic decline since the dissolution of the former USSR in 1991. The country's GDP contracted by almost 4 per cent in 1991, and the rate of contraction accelerated over the following years to more than 26 per cent in 1994. Preliminary indicators suggest a degree of stabilization in 1995, with the rate of contraction having slowed to about 6 per cent. The output of the industrial sector alone dropped by an annual average of 26 per cent in 1992 and 1993, and was estimated to have fallen by a further 24 per cent and 12 per cent in 1994 and 1995 respectively. While the contraction of the agricultural sector has been less dramatic, amounting to 21 per cent in 1991, 7 per cent in 1992 and 8 per cent in 1993 according to the latest available data, it marked the continuation of a long trend of decreasing productivity.[2/]

Table 30. Kyrgyz Republic: Economic growth performance, 1991-93
(Real percentage change)

	1991	1992	1993
NMP	-8.0	-17.0	-17.1
Agriculture	-21.3	-6.6	-8.0
Industry	9.0	-26.4	-24.2

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

The external trade of the Kyrgyz Republic has also declined sharply in recent years due to the dissolution of the former USSR and the collapse of the inter-union trading system. The volume of the country's exports dropped by more than 65 per cent in 1992 and 1993, with manufactured exports being most severely hit. At the same time the rapid and steep rise in the price of imported energy led to a serious deterioration in the terms of trade. Imports have been cut back to a minimum, and consist almost entirely of petroleum products and other necessities, with the country also having begun to receive food aid. Although the situation has improved modestly since 1994, primarily as a result of a gradual increase in exports to countries outside the former USSR, the country's external trade continues to be held in approximate balance only because of the severe compression of imports.

The balance of payments deteriorated sharply from 1991 to 1994 as a result of the loss of union transfers and the collapse in trade. This was exacerbated by the large increase in the price of imported energy caused by the shift to world prices following the demise of the inter-union trading system, and by the outflow of private transfers by emigrants. In 1993 the problem was worsened by delays in disbursement of foreign assistance. From a surplus of $245 million in 1992, the current account thus fell into deficit by $137 million in 1993, and continued to record deficits of some $45 million per year in 1994 and 1995.[3/]

Cut off from union transfers after 1991, the budget deficit of the Kyrgyz Republic ballooned to 16.6 per cent of GDP in 1992. Large expenditure cuts succeeded in reducing the deficit to 8.7 per cent of GDP in 1993 and 8 per cent of GDP in 1994, although even the latter figure exceeded the

target of 4.2 per cent agreed with the IMF. The 1995 budget, approved with some delay in June 1995, projected an increase in the deficit to 12.5 per cent of GDP, mainly because of continued difficulties with the raising of additional revenue and the declining scope for further expenditure cuts, although the actual outturn was held at 11.3 per cent of GDP. A target of 5.5 per cent has been set for 1996.

Price developments have followed the same pattern as in the other central Asian republics, with prices rising sharply and erratically. After an annual average inflation rate of 3 per cent in 1987-90, retail prices jumped by 181 per cent in 1991. Following a second round of price liberalization in January 1992, retail prices soared by 110 per cent, and wholesale prices by 378 per cent, in one month. By the end of the year retail prices had risen by 1,656 per cent, and wholesale prices by 931 per cent. In 1993 retail prices rose by a further 1,209 per cent, while wholesale prices increased by 700-850 per cent. Since the second half of 1993, however, the government has followed strict financial policies and in 1994 the annual rate of consumer price inflation dropped to 87 per cent. It fell further to just under 32 per cent in 1995.

In May 1993 the Kyrgyz Republic withdrew from the rouble zone and issued its own currency, the som. At the same time it adopted a stabilization programme supported by an IMF stand-by agreement and systemic transformation facility (STF). Initially introduced at Som4:$1 and Rb200:Som1 under a floating regime, the new currency was well received and even appreciated against both the dollar and the rouble in the first few weeks of circulation. By July it had begun to depreciate, and in March 1994 it was valued at Som12:$1 and Rb150-160:Som1. Since then it has remained relatively stable, with the exchange rate remaining at Som10-12:$1 in early 1996.

B. THE ECONOMIC STRUCTURE

The physical environment

The Kyrgyz Republic is a small land-locked state in the eastern part of central Asia. Covering an area of only 198,500 square kilometres, it has borders with Kazakstan to the north, China to the east, Uzbekistan to the west and Tajikistan to the south. The terrain is predominantly mountainous, and includes three separate ranges: the snow-capped Tian-Shan in the north-east, which has several glaciers; the Pamir-Alay in the south-west; and the Fergana range, which runs across the country from south-west to north-east.

The climate varies significantly between the lowlands and the mountains. The mean temperature in the lowlands is 28°C in July and -18°C in January. In the eastern Tian mountains the average annual rainfall is only 180 millimetres, while in the Fergana mountains it ranges between 750 millimetres and 1,000 millimetres. Only about 7 per cent of the country's land is arable.

By tradition the Kyrgyz are a pastoral nomadic people, with livestock rearing being the most important agricultural activity. The main crops cultivated in the country are grain, potatoes and other vegetables, fruit, cotton and tobacco. There is also a significant amount of apiculture.

In common with most of the other central Asian countries, the Kyrgyz Republic has considerable mineral wealth. Coal, tin, zinc, mercury, tungsten, antimony and uranium are all found in significant quantities. The republic is also thought to possess the world's seventh largest reserves of gold. It does not have significant oil or natural gas reserves, however, and meets its energy

needs from imports of these fuels as well as its coal resources and hydroelectric power generated by its many rivers. The latter is also an important export.

The demographic base

The Kyrgyz Republic has only one major city, the capital Bishkek, formerly known as Frunze, which has a population of almost 630,000. It is situated in the northern Chu valley near the border with Kazakstan. Of the country's 4.2 million inhabitants, 62 per cent live in rural areas and a substantial proportion of the labour force is employed in the agricultural sector.

Table 31. Kyrgyz Republic: Population trends, 1980-94, selected years
(Thousands)

	1980	1985	1988	1989	1990	1991	1992	1993	1994
Total	**3,584**	**3,954**	**4,183**	**4,254**	**4,335**	**4,390**	**4,452**	**4,469**	**4,430**
Males	1,738	1,921	2,038	2,076	2,118	2,149	2,183	2,197	2,185
Females	1,847	2,033	2,144	2,178	2,217	2,241	2,269	2,272	2,245
Urban	1,363	1,493	1,585	1,622	1,648	1,668	1,681	1,662	1,572
Rural	2,222	2,461	2,598	2,632	2,687	2,722	2,771	2,807	2,858
Below working age	1,419	1,540	1,651	1,680	1,714	1,740	1,767	1,777	1,771
Working age	1,822	2,023	2,110	2,144	2,185	2,211	2,239	2,242	2,219
Above working age	344	391	422	430	435	439	445	450	440

Source: State Statistics Committee.

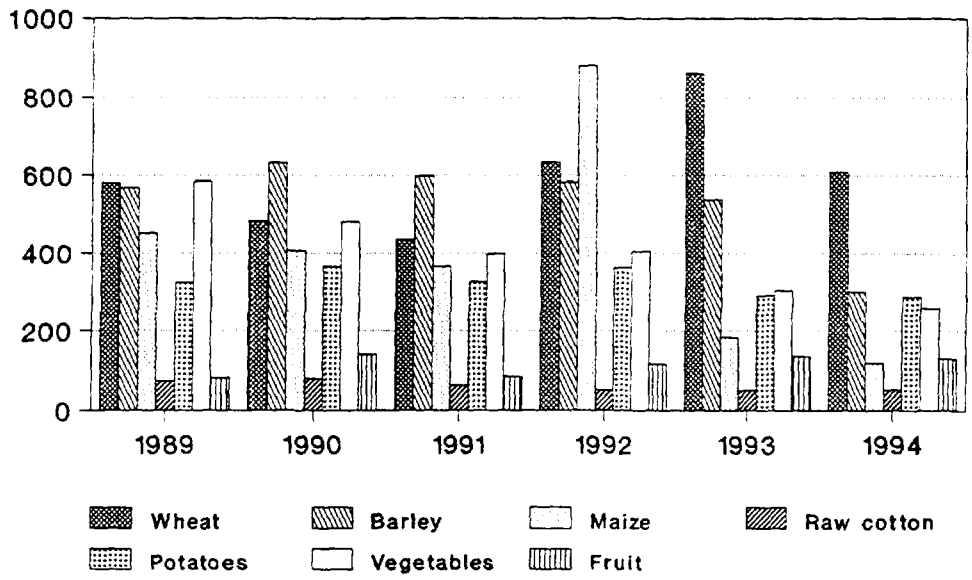
In 1991 about 52 per cent of the population consisted of ethnic Kyrgyz, while 21.5 per cent were Russians and 12.9 per cent were Uzbeks. Since 1991, however, there has been a significant emigration of Russians and other Slavic peoples. The principal religion in the country is Islam, with most ethnic Kyrgyz and Uzbeks belonging to the Hanafi school of the Sunni tradition.

Agriculture

In 1994 approximately 35 per cent of the Kyrgyz Republic's gross domestic product was accounted for by agriculture, and almost 44 per cent of the country's labour force was employed in that sector. The primary agricultural activity is animal husbandry, with almost 85 per cent of agricultural land being utilized for grazing. In 1991 the population of goats and sheep was estimated at 10 million. At the same time, the country depends on substantial imports of food, with approximately 25 per cent of the country's grain requirement being imported.

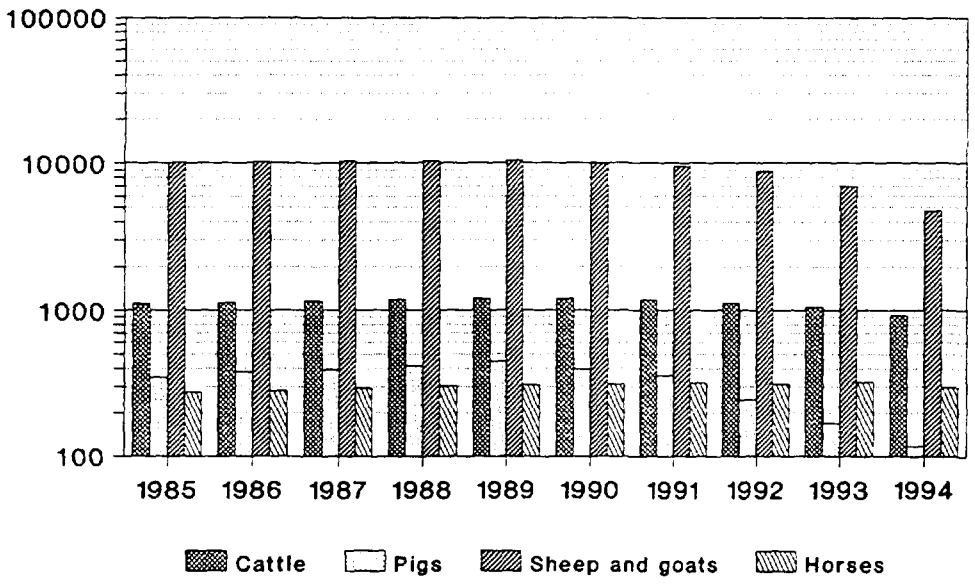
In recent years, agricultural production in the Kyrgyz Republic has been seriously affected by shortages of fuel and adverse weather conditions. This caused the loss of some 55,000 hectares of crops in 1994, causing the grain harvest to decline to 1.1 million tonnes from 1.6 million tonnes in 1993. This prompted the delivery of food aid from the United Nations and concessional grain shipments from the USA. The latest available data indicate a further, albeit more modest, decline in grain production to 1 million tonnes in 1995. Other crops, such as cotton and sugar beets, appear to have recorded an increased output in 1995, however, although the production of vegetables was reported to be well below 1991 levels.[4/]

Fig. 12. Kyrgyz Republic: Agricultural production
(Thousand tonnes)



Source: State Statistics Committee.

Fig. 13. Kyrgyz Republic: Animal husbandry
(Thousand animals)



Source: State Statistics Committee.

Mining and energy

In contrast to most of the other central Asian republics, the Kyrgyz Republic has very limited oil and gas resources and relies heavily on imports. The country has substantial coal reserves, however, and a significant proportion of its electricity is generated from coal and hydroelectric resources. In addition, the country produces antimony and molybdenum, and facilities for the production of tin-tungsten are nearing completion. Deposits of gold, mercury, uranium and other rare elements are also found in varying quantities.

A major objective of the government is to expand the country's gold production as rapidly as possible, from 1.2 million tonnes per year at present to 25 million tonnes, through the development of new fields and technological improvements in existing fields. Foreign investors are expected to play an important role in achieving this objective.[5/] Negotiations have been completed between the US firm Morrison Knudsen and the state-owned enterprise Kyrgyzaltyn to develop the deposit at Jerui, which is potentially the largest gold deposit of the former USSR. In addition, a deal has been signed between the government and the Canadian firm Cameco to develop the Kumtor field, and the Turkish firm Birlesmis Muhendisler Birligi has established a 30-year joint venture with the government to mine the Jerui and Komtur gold fields.

Manufacturing

The industrial sector was built up during the Soviet period and most enterprises were closely integrated into the production system of the former USSR. Their output range is relatively limited, and is concentrated on the production of processed food, textiles, automotive components, and some kinds of agricultural machinery, machine tools and consumer electronics products. Several of the country's manufacturing enterprises also served defence-related purposes, and were established to meet the demands of the Soviet military. Following the dissolution of the former USSR this demand has collapsed, causing the operation of these facilities to be severely disrupted. In the absence of alternative markets, which have proved very hard to find, the best hope for these enterprises appears to lie in their conversion to the manufacture of civilian goods.

Transport and communications

The Kyrgyz Republic has the highest road density of the central Asian republics, with 19,100 kilometres of roads, of which 88.5 per cent are paved. At the same time, however, the country's rail system has a total track length of only 372 kilometres, giving it lowest rail density of any of the central Asian republics. Until the early 1990s the country also had international and domestic air links, but a shortage of jet fuel has caused the closure of the airport in Bishkek. Connections are now made by air to Almaty, the capital of Kazakstan located near the border with the Kyrgyz Republic, and then by road to Bishkek.

In 1991 the Kyrgyz Republic had only 5.6 telephone lines per 100 persons, the second lowest density in the former USSR after Tajikistan with 4.9 lines per 100 persons.[6/] The distribution of lines was also extremely uneven, with almost no service being provided to the rural population. In 1990, there were only 1.7 lines per 100 rural residents, five times less than in the cities.

Considerable efforts are being made to improve the existing telecommunications network, however. In June 1994 the Kyrgyz Republic received its first loan for the modernization of its telecommunications system. The proceeds of this loan of $9.4 million from the European Bank for Reconstruction and Development (EBRD) will be used by the newly created Kyrgyz Telecom to provide international access and upgrade transmission links between Bishkek and the country's

other cities. The EBRD has also agreed to grant $1.5 million in technical assistance to develop the necessary organizational, financial and strategic planning skills in the new enterprise, while the International Development Agency (IDA, an affiliate of the World Bank) has offered a parallel loan for $18 million. In addition, the state-owned telecommunications company of Turkey, PTT, has been contracted to install a digital exchange and satellite-based communications system providing 2,500 international lines, which will have to be paid for in hard currency.

Banking and finance

A two-tier banking system began functioning in December 1991, when the National Bank of Kyrgyzstan (NBK) was formed from the local branch of Gosbank. Laws governing the central bank and the banking system were issued in 1991, entrusting the new central bank with the responsibilities for formulating and implementing monetary and credit policies, for the licensing of new banks, and for banking supervision and foreign exchange operations.

Three major commercial banks with a large branch network were established from the local branches of the former specialized union banks. These three banks, Promstroy Bank, Zagroprombank, and Kyrghystan Bank (previously Zhilsotsbank), account for about 95 per cent of the credits granted to state-owned enterprises and other public organizations, and hold almost 90 per cent of their deposits.[7/] Although these banks have become universal banks following their separation from the former specialized union-level banks, they continue in practice to serve mainly their previous clients. All three banks have inherited large non-performing loans, and while the government has recapitalized them once, their balance sheets have deteriorated further in recent years because of their continued lending to loss-making state-owned enterprises.

The Kyrgyz Republic also has a savings bank, which accepts saving deposits from the population and extends credit to households and small businesses. It also indirectly provides short-term credit to the commercial banks, since a major share of the deposits collected by the savings bank have to be deposited with the NBK, which lends these funds to the commercial banks.

Thirteen new banks, including two foreign joint-venture banks, had been licensed by the end of 1995, although their capitalization is relatively small compared to that of the three large commercial banks, and most of them do not have branches. The principal source of funds for the new banks is the NBK, which provides refinancing facilities for their loans.

Foreign banks are permitted to open branches in the Kyrgyz Republic with the permission of the Ministry of Foreign Affairs. The initial permit is given for a period of three years, following which the bank has to apply for a renewal.

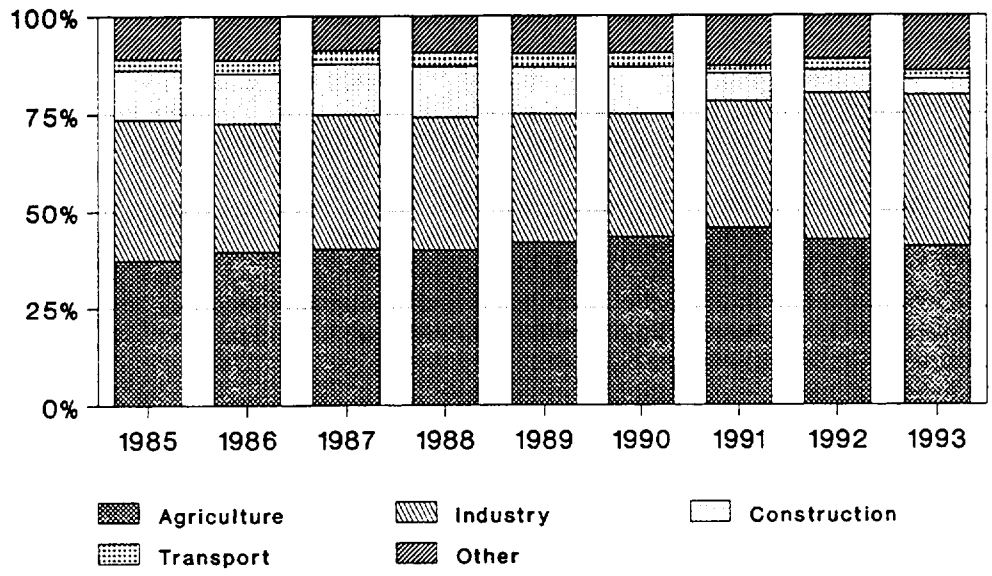
Trade, tourism and other services

While tourism, trade and services have not been important sectors of the economy in the past, the country is actively promoting the development of its tourism resources. A programme for the development of the sector is currently being drafted, and foreign investment in the industry is being encouraged.

The Kyrgyz Republic possesses vast resources that could be exploited for the development of the tourism industry, including several spas dispensing mineral waters and more than 2,000 mountain lakes. About 97 per cent of the republic's territory is mountainous, with some of the highest mountains in the world outside the Himalayas and Pamirs, and the country currently has 16 state game reserves and four national parks. What is lacking, however, is the infrastructure required to bring in and look after foreign tourists, including hotels and appropriate transport facilities.

Because of the lack of this resort infrastructure and the abundance of fish and game, the country hopes to attract "wilderness" holidaymakers and develop other non-capital intensive forms of tourism in the near term.

Fig. 14. Kyrgyz Republic: Net material product
(Percentage share)



Source: State Statistics Committee.

Table 32. Kyrgyz Republic: Distribution of gross domestic product by sector of origin, 1992-94
(Percentage of total)

	1992	1993	1994
Agriculture	34.7	27.6	23.8
Industry	37.1	36.9	34.7
Construction	3.8	5.5	4.2
Trade	2.4	0.9	..
Transportation and communication	3.4	4.4	..

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Demand structure of GDP

In 1985 consumption accounted for 82 per cent of GDP, with private consumption accounting for 60 per cent. Investment, meanwhile, accounted for 36 per cent of GDP, with the excess being

made up for by imports financed by union transfers. By 1991 the share of consumption had fallen to 69 per cent of GDP, with private consumption remaining the dominant component of total consumption. Investment had also fallen to 33 per cent of GDP. In 1992 the loss of union transfers severely reduced the shares of both public and private consumption as well as public investment, and resulted in a sharp rise in inventories. By 1993 the traditional balance had largely been restored, however, with the share of consumption rising to 78 per cent.

Table 33. Kyrgyz Republic: Structure of demand, 1985-93
(Percentage share, current prices)

	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**
Consumption	81.7	81.8	83.0	81.3	83.1	84.5	69.2	58.2	78.1
Private consumption	59.6	59.2	59.6	58.9	62.3	62.8	48.9	45.5	66.8
Government consumption	22.1	22.6	23.4	22.5	20.8	21.6	20.3	12.7	11.3
Gross domestic investment	36.4	37.1	37.5	36.6	40.2	34.3	32.8	53.4	30.1
Gross fixed investment	30.0	31.5	32.1	29.8	33.0	30.2	17.2	15.0	12.8
Change in stocks	6.4	5.5	5.4	6.8	7.2	4.1	15.5	38.4	17.3
Net exports	-18.1	-18.9	-20.5	-17.9	-23.3	-18.7	-2.0	-11.6	-7.1

Source: State Statistics Committee.

External trade and payments

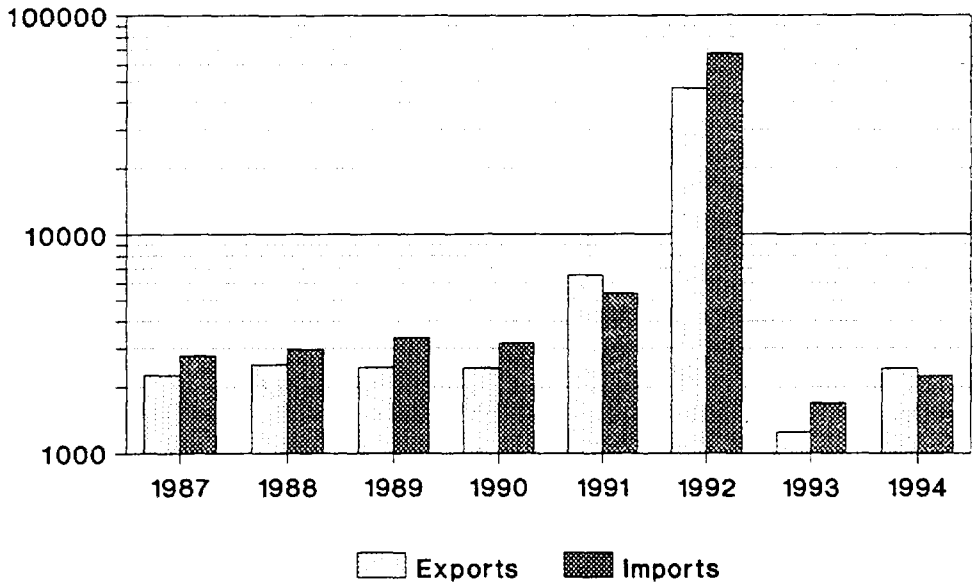
Because of the high level of specialization in production and the small size of the domestic market, the Kyrgyz Republic has depended heavily on external trade. However, the country's trade has historically been dominated by flows to and from the other republics of the former USSR, with the share of this trade in total trade usually having been significantly higher than in the other central Asian republics. In 1990, for example, such inter-republic trade accounted for 98 per cent of the country's exports and 75 per cent of its imports. Even within the former USSR, the Kyrgyz Republic's trade was largely concentrated in a few markets. In 1992 the Russian Federation and Kazakstan accounted for 39 per cent and 22 per cent of the country's inter-republic exports and 49 per cent 23 per cent of its inter-republic imports respectively. The overall dependence of the Kyrgyz Republic on these two countries remained high until 1994, the latest year for which comprehensive data are available, although their relative shares have shifted significantly in the interim.

The disruption to trade between the republics of the former USSR caused by the collapse of the inter-republic payments system was exacerbated by the introduction of the som in 1993. Several republics of the former USSR were initially unwilling to accept payment in som, causing trade flows to be further depressed.

The Kyrgyz Republic's trade beyond the borders of the former USSR has not yet settled into any discernible pattern. In 1992 it was dominated by China, which supplied 23 per cent of the country's imports from outside the former USSR and accounted for 37 per cent of its exports to such markets. By 1994 these shares had changed to 10 per cent and 48 per cent respectively.

Since much of this trade is conducted on a barter basis, the Kyrgyz Republic's hard currency earnings from it have been very limited. Trade with other countries outside the former USSR has fluctuated from year to year, although Turkey and Germany appear to be emerging as major import suppliers and significant export markets.

Fig. 15. Kyrgyz Republic: Inter-republic trade
(Million national currency units[a/])



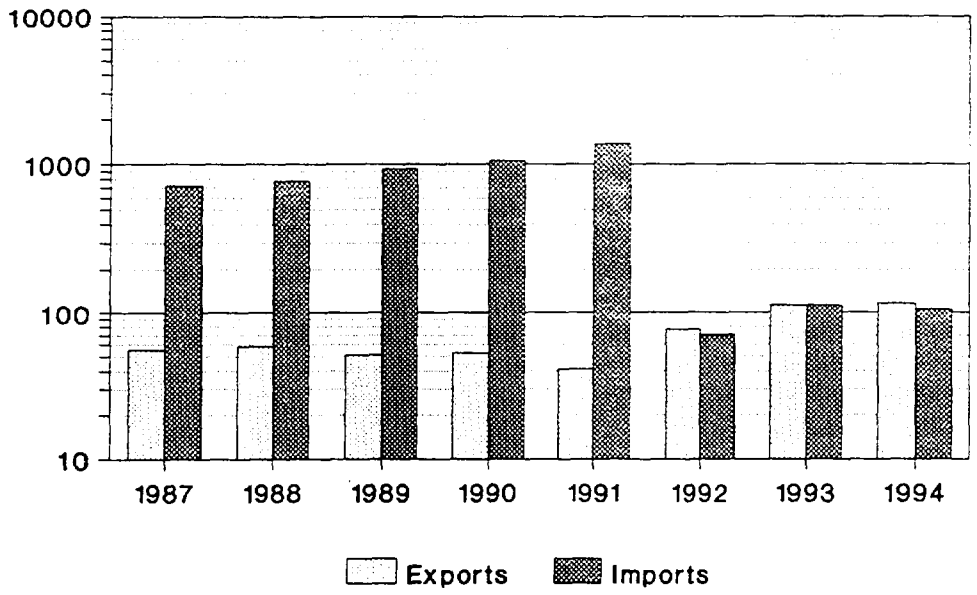
Source: State Statistics Committee. a/ Roubles for 1987-92; som for 1993 and 1994.

Table 34. Kyrgyz Republic: Distribution of inter-republic trade, 1991-94
(Percentage of total)

	1991	1992	1993	1994
Exports				
Kazakstan	13.0	22.4	29.0	29.0
Russian Federation	43.3	39.1	45.8	26.0
Ukraine	9.2	17.3	5.7	5.7
Uzbekistan	11.0	10.4	9.6	9.6
Imports				
Kazakstan	14.4	23.3	28.9	28.0
Russian Federation	48.4	49.0	47.2	33.5
Ukraine	7.2	8.1	2.0	1.4
Uzbekistan	15.1	9.1	17.3	30.2

Source: State Statistics Committee.

Fig. 16. Kyrgyz Republic: Extra-republic trade
(Million currency units as indicated[a/])



Source: State Statistics Committee. a/ Roubles for 1987-91; dollars for 1992-94.

Table 35. Kyrgyz Republic: Distribution of dollar-valued trade with countries outside the former USSR, 1992-94
(Percentage of total)

	1992	1993	1994
Exports			
China	36.6	52.7	48.2
France	8.9	..	1.9
Germany	7.7	4.8	5.7
Turkey	2.4	2.3	3.3
United Kingdom	15.1	26.8	25.3
Imports			
China	23.1	16.6	10.4
Cuba	..	-	11.3
Germany	-	2.7	6.4
Turkey	4.8	7.9	14.2
United States	32.8	48.8	33.0

Source: State Statistics Committee.

The Kyrgyz Republic's major exports include non-ferrous metals and minerals, agricultural products and foods, textiles, electric power and some kinds of machinery, while its imports comprise a wide range of goods including oil and gas, ferrous metals, chemicals, machinery and metal works, light industrial goods and a wide range of food products. The republic is a net exporter of hydroelectric power, non-ferrous metals, machinery and textiles, and a net importer of timber. Exports to markets beyond the former USSR consist mainly of non-ferrous metals and some light industrial goods, while imports from suppliers outside the former USSR consist largely of food, agricultural products and light industrial goods.

In order to assist its progress towards the adoption of market-oriented economic policy reforms, the Kyrgyz Republic has been granted loans both from international lending institutions and from bilateral donors. The principal sources of such external funding include the IMF, the World Bank, the IDA and the EBRD. The Kyrgyz Republic was thus the first country to receive the IMF's systemic transformation facility, which was approved in May 1993. In addition, the country has also been granted export credits and export credit guarantees from a number of countries, including Turkey, the Islamic Republic of Iran, Japan and the United States. Several republics of the former USSR, including Azerbaijan, Kazakstan and Uzbekistan, have also committed themselves to providing the Kyrgyz Republic with trade credits.

C. THE MACROECONOMIC POLICY ENVIRONMENT

Economic reforms

Since 1991 the Kyrgyz Republic has adopted macroeconomic reforms similar to those introduced in the other republics of the former USSR.[8/] The process of price liberalization was initiated in 1991 and its scope broadened in 1992 as a result of which the prices of about 90 per cent of commodities traded in the domestic market had been liberalized by the end of the latter year. After 1992 the pace of the reform programme accelerated further, with the introduction of a privatization programme, tentative steps towards a restructuring of state-owned enterprises, and a significant reduction in the scope of the state order system.

In 1993 the Kyrgyz Republic negotiated a stand-by agreement with the IMF, which approved a systemic transformation facility (STF) for the country. The stabilization programme initiated under the terms of this facility provide for a significant reduction in the budget deficit and a sharp decrease in the money supply. The success of this programme, which was followed by the launching of a new structural adjustment programme in June 1994, resulted in the granting of an enhanced structural adjustment facility (ESAF) worth more than SDR88 million in December 1995.

Following the country's declaration of independence, several changes were adopted in order to establish an appropriate institutional framework at the republican level to replace the now inoperative institutions at the central level. Some new institutions were also set up in response to the perceived requirements of a market economy. In 1992 the 41 ministries that had previously operated through branches of the former centralized administration were reorganized into 13 ministries and seven commissions. The Ministry of Economy and Finance, for example, was formed through the merger of the Ministry of Finance and the State Committee for Planning (Gosplan), and an independent tax inspectorate was created.

Fiscal policy

Union transfers constituted an important component of the Kyrgyz Republic's budget during the Soviet period. By 1991 they accounted for 35.5 per cent of total government revenue, or 12.7 per cent of GDP, and contributed significantly to the achievement of a budget surplus equivalent to 4.5 per cent of GDP. The loss of these transfers, and a sharp decline in tax revenue resulting from the economic disruptions associated with the dissolution of the former USSR, caused the budget to record a large deficit in 1992 corresponding to 16.6 per cent of GDP. Despite a continued fall in tax revenue in 1993, the government was able to reduce the budget deficit to 8.7 per cent of GDP through a large cut in public expenditure from 32 per cent of GDP to 23 per cent of GDP, thereby coming close to meeting the target of 7 per cent of GDP set by the stabilization programme. In 1994 the deficit was reduced further to 8 per cent of GDP although it increased again to 11.3 per cent in 1995.

The medium-term fiscal policy objective of the government is to reduce the deficits further, to the point where they can be financed by domestic and foreign savings on a sustained basis. The ESAF agreement negotiated with the IMF in December 1995 thus calls for the deficit to be reduced to 5.5 per cent of GDP in 1996 and 3.7 per cent of GDP in 1997. With public spending already having been cut drastically, the targeted deficit reductions are to be achieved primarily through an intensification of revenue generating efforts. The first steps in this direction were taken in the first quarter of 1994 when several new initiatives were decreed, including:

- the creation of a tax police to collect arrears;
- the withdrawal of trading licences from enterprises convicted of tax evasion;
- a tenfold increase in excise taxes;
- a twentyfold increase in land and private motor vehicle taxes;
- a moratorium on the granting of tax or customs rebates;
- a broadening of the VAT base through the elimination of exemptions;
- the elimination of exemptions from profit tax;
- the introduction of a 5 per cent sales tax;
- the imposition of a royalty requirement on gold production;
- instructions to the NBK to initiate bankruptcy proceedings against insolvent enterprises; and
- the imposition of a moratorium on NBK hard-currency credits to enterprises.

Monetary policy

Until the issuance of the som in May 1993 and the withdrawal of the Kyrgyz Republic from the rouble zone, the country's monetary policy was determined by the central bank of Russia. With the introduction of the new currency, however, the Kyrgyz Republic took control of its own monetary policy, and by June 1993 a restrictive monetary stance had been adopted. Despite some occasional slippages, which were quickly corrected, this stance was sustained into 1994 and 1995, resulting in a gradual easing of inflationary pressures.[9/]

In early 1994 the large overdrafts of the commercial banks with the National Bank of Kyrgyzstan were rescheduled.[10/] The banks are now amortizing their debts on a weekly basis over three years and all new refinance credit is to be channelled through the auction system. Steps have also been taken to prevent the recurrence of overdrafts, and the NBK has instructed the commercial banks to cease extending new credits to financially troubled enterprises. These measures were accompanied by the introduction of a regulation requiring prepayment for the delivery of goods outside the Kyrgyz Republic in order to limit the further build-up of inter-republic arrears.

Trade policy

The foreign trade of the Kyrgyz Republic continued to be controlled by the government until 1994, with only a relatively limited degree of liberalization having taken place in 1992-93. Exports of a wide variety of goods remained subject to licensing requirements and export tariffs, varying by commodity from 5 per cent to 80 per cent.[11/] Imports also remained subject to licensing and tariffs until 1993, when duties on all imported goods except tobacco and alcoholic beverages were lifted. Despite a significant reduction in the scope of the state-order system in 1992, the remaining licensing requirements and foreign exchange constraints continued to limit the potential for autonomous trading by enterprises.

In line with the other central Asian republics, the Kyrgyz Republic adopted a surrender requirement for foreign exchange earnings from exports in 1991. After initially taking over the existing centralized arrangements, under which the surrender requirements varied by type of commodity, the government reduced the surrender requirements in 1992 from an average level of 70 per cent to about 50 per cent, while at the same time broadening the scope of commodities subject to the surrender requirement.[12/] The high surrender requirements and the country's limited foreign exchange resources forced a significant proportion of its trade to be conducted on a barter basis, and its foreign exchange revenues from trade to remain very limited.

The government responded to these problems by initiating a number of important trade policy reforms from mid-1993 onwards. The foreign exchange surrender requirement was abolished after the introduction of the new national currency in May 1993. This was followed in early 1994 by the removal of all remaining import and export licensing requirements with the exception of those imposed on a small number of strategic or hazardous products, and the abolition of export taxes on all but six products. In addition, the state-order system was also abolished in early 1994 and replaced with a system of procurement based on voluntary supply contracts with producers to meet "state needs" arising from inter-republic agreements with Kazakstan, the Russian Federation and Uzbekistan. These state needs were themselves significantly reduced in 1995, and in the early part of the year the number of goods subject to export tax was reduced to four: wool, cotton, hides and skins, and silk cocoons.

The government's trade policy is geared mainly towards increasing the country's export capacity, particularly with regard to its mineral resources. In this context it is seeking to re-establish its erstwhile trade links with the republics of the former USSR, and to penetrate new markets. The government's goal is to reduce the trade deficit (excluding transfers) from the 1993 level of 15.5 per cent of GDP to 8 per cent by 1997.

The attempt to restore the country's trade relations with the other central Asian republics has already begun. The Kyrgyz Republic hosted a summit with the leaders of Kazakstan and Uzbekistan in April 1994, with the purpose of giving substance to an earlier accord creating the Central Asian Economic Cooperation Organization (ECO). One of the many issues discussed at this summit was the development of an operational payment system now that all of the republics are no longer members of the rouble zone.

The Kyrgyz Republic and Kazakstan also signed an agreement on September 17, 1994, making the som and the tenge legal tender in both countries. All currency restrictions on the two units were lifted in both countries, and both currencies may now be used in inter-bank trading and investment activities by individuals and legal entities in both countries. A commission will oversee the rate of exchange between the currencies. A similar agreement was signed with Tajikistan on June 13, 1995, and on June 22, the Kyrgyz Republic upgraded its trade relations with Kazakstan by signing

a free-trade accord with the country. In February 1996, finally, the country acceded to the customs union of the Commonwealth of Independent States.

Beyond the borders of the former USSR, the Kyrgyz Republic signed a trade agreement with China in 1994 covering a broad range of trading activities between the two countries. The terms of the agreement were determined by the China Council for the Promotion of International Trade and the Kyrgyz Council of Industry and Commerce, and provided, *inter alia*, for an official Chinese credit of $5.9 million to enable Kyrgyz importers to procure Chinese goods.[13/]

Box 2. Kyrgyz Republic: Major trade agreements

* GATT observer status (1993).
* Partnership and Cooperation Agreement with the EU (May 1994). Meanwhile, EC Trade and Cooperation Agreement (December 1989) with USSR remains in force.
* Other OECD countries have granted MFN and/or GSP status, some on an exceptional, temporary or *de facto* basis.
* Economic union with the CIS countries signed September 1993. Bilateral barter and inter-governmental agreements in place with CIS countries.
* Single Economic Space with Kazakstan and Uzbekistan (January 1994).
* Member of the Economic Cooperation Organization (ECO) formed by Turkey, the Islamic Republic of Iran and Pakistan.
* Accession to the customs union of the CIS (February 1996).

Balance-of-payments policy

The balance of payments of the Kyrgyz Republic has fallen into a serious disequilibrium following the dissolution of the USSR, and the country must devise a careful strategy for the future in order to avoid severe debt service problems. In 1992 the republic transferred its share of the debt of the former USSR to the Russian Federation in exchange for relinquishing its claims on the assets of the former USSR. By 1993, however, it had to convert its previous rouble credit lines and correspondent balances with the Russian Federation, Kazakstan and Uzbekistan into SDR or dollar-denominated debt equivalent to $168 million.

With further external borrowing in 1993 and 1994, the Kyrgyz Republic's external debt had risen to more than $365 million, equivalent to about 22 per cent of GDP, by mid-1995. With its debt service costs expected to account for some 26 per cent of its export earnings in 1995,[14/] the country's ability to obtain further external loans has been significantly reduced. The problem is exacerbated by the fact that a large proportion of the country's borrowing in recent years has consisted of commercial trade credits. The IMF is reported to have advised that no further

borrowing should be undertaken, except at concessional terms, in 1994-98. If that advice is followed, the World Bank expects the country's debt service burden to have declined to below 20 per cent of exports by the end of the period specified. If not, the bank expects the country to face serious repayment problems in the near term.[15/]

Foreign exchange policy

Until May 1993 the Kyrgyz Republic remained in the rouble zone and was subject to the foreign exchange policy and regulations of the union, which required, *inter alia,* that enterprises surrender 50 per cent of their foreign exchange earnings. In May 1993 the country withdrew from the rouble zone and issued its own currency, the som, supported by a stand-by agreement with the IMF. At the first currency auction, the som traded at Som4:$1 and Rb230:Som1. At the same time the rouble was trading at Rb1,500:$1.

During the first two months of trading the som fell to Som4.30:$1 on the exchange, while on the black market it fell to Som7:$1. By February 1994 the exchange rate was at Som9.50:$1, but it soon stabilized at about Som10-12:$1. The introduction of the som also resulted in the abolition of the surrender quotas, and it became illegal to make payments in any currency other than the som. The export of cash roubles was limited to Rb200,000.

Policies towards human resource development

Official policies towards human resource development have been largely limited to meeting the needs of the agricultural sector and certain industrial enterprises, particularly at the shop-floor level. There has been little development of technological capability for adaptation and innovation.

Table 36. Kyrgyz Republic: Educational institutions, 1989

	Number of institutions	Students
Secondary schools	1,752	928,200
Specialized secondary schools	47	49,152
Professional/technical schools	109	38,923
Higher schools and universities	10	57,109

Source: Europa Publications Ltd, *Eastern Europe and the Commonwealth of Independent States,* London, 1992.

Education is officially compulsory for ten years between the ages of seven and 17. The country had 1,908 secondary schools in 1989, as well as one university and nine other institutions of higher learning. In 1993 another Kyrgyz-Russian university was opened.

Both Russian and Kyrgyz are recognized as official languages of instruction in general education day schools, with 34 per cent employing Russian and 52 per cent employing Kyrgyz.[16/] In 1992 almost 25 per cent of the government's budgetary expenditure was devoted to education, and the

latest available data indicate that 93 per cent of the working population had at least some secondary education in 1990.

Despite the relatively high level of education of the population, the skills required for the transition from a command to a market-based economy are lacking in the Kyrgyz Republic. Aware of this shortfall, the government has requested and received several technical cooperation grants specifically for training and education purposes.

Environmental policies

The Kyrgyz Republic has inherited the environmental regulations of the former USSR, which were strict by international standards but were largely unenforced and seldom adhered to. Partly because of the lower level of industrialization and partly because of the limited usage of irrigation in agriculture, which has had a significant environmental impact in the other central Asian republics, the environmental pollution and degradation suffered by the Kyrgyz Republic has been less severe than that of its neighbours. A State Committee on Environmental Protection (Goskompriroda) has nevertheless been established to formulate new environmental protection regulations for the republic.

D. POLICIES TOWARDS INDUSTRY

Privatization

The government's policy on privatization was laid down in the Law on General Principles of Destatization, Privatization, and Entrepreneurship of December 20, 1991.[17/] The basic objectives of the law are identified as the development of entrepreneurship, the strengthening of the property rights of economic subjects, and the inadmissibility of monopolistic activity and unfair competition. Article 3 of the law provides for the establishment of institutions to implement a privatization programme under the coordination of the State Committee of the Kyrgyz Republic for the Management of State Property and Support for Entrepreneurship (Goskomimushchestvo). The law permits various forms of private ownership, including joint-stock companies, and provides for the privatization of all economic activities apart from a few clearly identified exceptions. These include enterprises involved in the exploitation of commodities regarded as commonly held assets of the Kyrgyz Republic, such as land and mineral resources. These assets may, however, be leased under the terms of the legislation.

The privatization programme initiated in 1991 set well defined targets for various sectors. These were targeted at about 45-50 per cent for the industrial sector as a whole, with a privatization level of 100 per cent being set for the generation and distribution of electricity, and 55-60 per cent for light industries, including most of the textile industry. At the lowest extreme, the privatization target for the machinery and metal-processing industries was set at 10 per cent.[18/] In overall terms the privatization programme aimed to establish an ownership structure yielding a 30 per cent shareholding to the employees of the privatized enterprise, with the remaining equity being transferred to suppliers, the government and the public. To promote employee shareholding, the workforce of an enterprise slated for privatization was permitted to acquire its shares at 70 per cent of the market value.

Enterprises in industries where the government operates a monopoly, such as the alcoholic beverages, sugar and tobacco industries, were excluded from the privatization. The privatization

of small and medium-sized enterprises was to be accomplished through competitive bidding, including auctions, while the privatization of large enterprises was to be achieved through the leasing of state property to private entities, the creation of holding companies owned by workers, and the public flotation of the shares of these enterprises. Interest-free loans were to be provided by the National Enterprise Fund to each citizen for the purchase of these shares.

By January 1993 about 2,300 enterprises, representing approximately 12 per cent of the Kyrgyz Republic's fixed assets, had been privatized, with about 2,000 of these entities consisting of small-scale enterprises in the trade and services sectors.[19/] By the end of the year 26 per cent of all state assets were reported to have been privatized, most of which were in the construction industry and the trade and catering sectors, where private ownership rates of 55.6 per cent and 68.4 per cent respectively had been achieved. The privatization of industrial assets proceeded more slowly, however, and was hampered by the weak economic position of many of these enterprises following the loss of their traditional suppliers and markets as a result of the dissolution of the former USSR. Only 11 per cent of these enterprises had been privatized by the beginning of 1993, and the implementation of the privatization plan remained below target during the rest of the year.[20/]

A new mass privatization programme was launched in early 1994. This new programme was based on the principle of competitive privatization, and consequently differed from its predecessor in a number of important respects. In particular, it did away with the practice of transferring majority shareholdings to the management and workers of the enterprises on preferential terms, thereby providing a more transparent framework for the privatization process and allowing a greater degree of popular participation.

Under the new programme all remaining small-scale enterprises were to be sold off competitively at cash auctions, while the remaining state shares in already partially privatized enterprises were to be sold through voucher and cash auctions involving both individual voucher holders and investment funds. The privatization of medium-sized and large enterprises, meanwhile, was to proceed through the free distribution of 5 per cent of the shares of each enterprise to its employees, the auction of 25 per cent of its shares to voucher holders, and the sale of the remaining 70 per cent through open competition to "core investors" with the resources and capability to restructure and operate the enterprise successfully after privatization. These new measures have been relatively successful, and by mid-1995 the privatization of small-scale retail and trade enterprises had been largely completed. The level of participation in the privatization of medium-sized and large enterprises has remained low, however, due to a combination of problems, including a lack of resources and interest on the part of potential purchasers and inadequate information about the privatization process.

Private sector development

The Law on General Principles of Destatization, Privatization, and Entrepreneurship of December 20, 1991, provides the legal framework for the development of private entrepreneurship in the Kyrgyz Republic. It guarantees freedom of entrepreneurial activity, and specifies the forms that such activity may take as well as the kind of state support that may be provided for such activity. This support may include the following measures:

> the provision of credit for specific purposes, such as the modernization of plant and equipment, innovative activity, and the introduction of new products and services;

- the granting of subsidies for specific purposes, including tax privileges and other economic measures;
- the granting of financial assistance for the acquisition of material and technical supplies and services for the training and retraining of personnel; and
- the provision of infrastructure assistance for underdeveloped areas.

In addition, the law also provides for state assistance in the development of the market and financial infrastructure, including stock exchanges, auditing services, leasing companies and similar institutions.

Institutional framework for industrial development

The Ministry of Industry was established in 1991 to coordinate the activities of all industrial enterprises in the Kyrgyz Republic, including local branches of enterprises owned by the former USSR. In 1991 the ministry managed 142 industrial enterprises and specified their production and distribution targets in line with the state-order system. As the process of privatization has progressed in subsequent years, the number of these enterprises has decreased gradually.

Financial support for industrial development

Although the structure of Kyrgyz Republic's banking system has been significantly modified in recent years, and now includes a number of newly established commercial banks, the system continues to be dominated by the large state-owned banks created out of the local networks of banks serving the former USSR. The newly created banks tend to be severely undercapitalized, and are themselves largely owned by state enterprises and ministries. Most of the large banks are saddled with non-performing loans, and many are insolvent despite the fact that they have been recapitalized.

The problems of illiquidity faced by the banking system are exacerbated by the fact that the technical capability of the banks is also underdeveloped. Old accounting and reporting systems dating from the Soviet period prevail, and there has been little or no improvement in the range and quality of services provided by the banks. With these weaknesses, the system is not in a position to provide the banking services and financial support needed to promote industrial development. The absence of other financial institutions, such as functioning capital and money markets, imposes a further constraint on industrial development.

Promotion of foreign direct investment

Before it gained its independence the Kyrgyz Republic received no foreign direct investment. Since independence the government has encouraged the inflow of foreign investments, and enacted a comparatively liberal Law on Foreign Investments in June 1991.[21/] The law permits joint ventures and wholly foreign-owned operations, and grants foreign investors operating in the country the same rights as their domestic counterparts with a few exceptions, such as a prohibition on the production of military goods and on certain agricultural activities. A decree issued by the president in September 1994 further guarantees foreign investors the right to repatriate capital and profits in hard currency, or in goods produced by their own enterprises or purchased locally.[22/]

The investment law of 1991 has some promotional features, and provides various tax incentives to companies with foreign participation. Foreign investors are entitled to a tax holiday of up to five years for investments in manufacturing and construction activities.[23/] In addition, foreign investors are also exempted from tax on reinvested profits, and obtain a 50 per cent tax credit on investments undertaken for environmental protection. Further incentives include a tax credit on

profits if at least 50 per cent of a company's output is exported, or if the local content of its output exceeds 50 per cent. Imported equipment and raw materials used in the production of these goods are exempted from tariffs.

However, the law contains certain provisions that may be considered unfavourable by foreign investors, such as the requirement that disputes be settled through local courts. Foreign investments in the mining sector may also be affected by a prohibition on land ownership by investors. Import restrictions and the imposition of tight controls and heavy taxes on exports in general and commodity exports in particular have also acted as deterrents, but will play a less significant role in the future following the liberalization of foreign trade regulations since 1994.

The inflow of foreign direct investment into the important mineral processing industries has also been hindered by the prevailing mining code and the Law on Concessions and Foreign Concessional Enterprises adopted in 1992, which are not consistent with international standards in a number of key areas and need to be revised to harmonize with the Foreign Investment Law. The existing institutional and administrative structure for approving investments in the mining and mineral processing industries, which is marked by a high degree of overlapping responsibilities between such institutions as the Ministry of Finance, the Committee on Foreign Investments created in 1993, the State Committee on Geology, the Ministry of Industry, the Committee on Foreign Economic Relations and the State Committee on Environmental Protection, also complicates the negotiating process between foreign investors and the local authorities. There is consequently an urgent need for a streamlining of the approval procedures for foreign investment proposals in the mining and mineral processing sectors, and for an effective coordination of the activities of the various regulatory agencies and bodies.

Foreign investment flows have remained modest. In 1991 the net inflow of foreign direct investment amounted to approximately $20 million, and in 1992 was estimated to have increased to about $50 million.[24/] Subsequent estimates prepared by the World Bank indicate that these net inflows amounted to only $10 million in 1993 and $25 million in 1994.[25/] With the exception of a $350 million gold mining venture and the granting of oil exploration rights, most of these foreign investments are concentrated in the consumer goods industries. Companies from the Republic of Korea have established facilities for the assembly of television sets and microwave products; investors from Turkey and Poland have set up processing facilities for fur, sheepskin and leather goods; a joint venture with a company from Liechtenstein is engaged in the processing of silk; and a joint venture with an Italian firm is operating a food processing plant. The Tupolew aircraft company of the Russian Federation has also entered into a joint venture with a local firm to produce 20-30 Tu-34 light aircraft per year from the end of 1995 onwards.[26/] The UK firm British American Tobacco (BAT) has entered into an agreement for the purchase of a tobacco processing plant, and by 1994 more than 75 joint ventures were established between Kyrgyz and Chinese enterprises, most of which utilize Chinese technologies for food processing and the production of agricultural implements and pharmaceuticals.[27/]

Enterprise restructuring

Industrial enterprises in the Kyrgyz Republic, as elsewhere in the former USSR, are marked by a high degree of vertical integration and operate on a scale significantly in excess of local demand. Estimates prepared in 1993 suggested that the country had approximately 7,500 separate industrial enterprises, of which about 3,000 were medium-sized or large units organized in about 500 conglomerates.[28/] As a result of the collapse of inter-republic trade, the contraction of domestic demand and the decline of defence-related industries, however, a substantial number of these predominantly state-owned medium-sized and large enterprises are operating at significantly

below capacity, especially in the metalworking and machinery industries. In 1994 it was estimated that more than 50 major enterprises were standing idle, and 170,000 people were either fully or partially unemployed.[29/] With industrial output reported to have fallen further in 1995, this situation appears unlikely to have improved in the meantime.

The deteriorating economic viability of much of the industrial sector will inevitably necessitate the introduction of an extensive programme of enterprise restructuring, involving primarily the conversion of the existing industrial capacity from the production of heavy machinery and defence equipment to the manufacture of consumer goods and high technology products. The first steps in this direction were taken in April 1994, when a presidential decree was issued calling for the liquidation of loss-making enterprises and for the establishment of a state commission to prepare a list of insolvent state-owned companies needing to be restructured or shut down. The principal aim of the proposed restructuring programme was to adjust the product mix and scale of production of the Kyrgyz Republic's manufacturing enterprises to the changed economic circumstances, and in particular to reduce their dependence on external suppliers and markets.

The implementation of the enterprise restructuring programme proceeded very slowly, however. In the early stages the restructuring of large industrial enterprises was hindered by the slow pace of privatization and by the fact that the method of privatization often involved the transfer of state-owned enterprises to workers' collectives, which tended to limit the subsequent change in employment levels necessitated by the reorganization and restructuring process. In addition, the pace of restructuring was limited by the diffusion of ownership and decision-making power that has emerged following independence, and by the frequent lack of appropriate analytical and administrative skills in such decision-making institutions as the branch ministries, the State Property Fund and workers' collectives. The favourable treatment given to state-owned enterprises in the form of comparatively easy access to credit, often on subsidized terms, and preferential access to inputs through the state-order system also reduced the incentive of these enterprises to restructure their operations.

In order to speed up the enterprise restructuring programme the government established the Enterprise Reform and Resolution Agency (ERRA) in mid-1994 as a temporary body to centralize the restructuring of the largest loss-making state-owned enterprises. The agency, which is directly responsible to the Office of the President, has wide ranging powers to close down, restructure and/or liquidate the approximately 30 enterprises under its authority, which include the Maili Suu Light Bulb Factory, the Bishkek Agricultural Machinery Factory and the Kyrgyz Mining and Metallurgical Company. As a first step the agency placed these enterprises under a care and maintenance programme, cutting them off from access to bank credit and funding them directly through the state budget in the interim. The agency is currently in the process of preparing diagnostic studies of these enterprises to determine their viability and future prospects, on the basis of which to make the appropriate restructuring decisions. According to the original schedule, the restructuring or liquidation of the first ten enterprises is to be completed by early 1996, although the available evidence suggests that this target may have slipped.

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Growth

The manufacturing industry of the Kyrgyz Republic was developed between the 1930s and the 1960s by Russian-speaking immigrants (predominantly Russians and Ukrainians) as part the overall industrial base of the former USSR. The industrial plants established in the republic often formed part of large multi-republic enterprises, and were frequently intended to take advantage of the republic's mineral base for military purposes. Of the 60 products classified as "important" by the central authorities, the Kyrgyz Republic produced only 14: electric motors; machines and equipment required by the livestock farming and animal fodder producing industries; soft roofing and insulating materials; window glass; cotton fibres; woollen fabrics; linen and hemp fabrics; silk fabrics; textiles; shoes; radio receivers; refrigerators; bicycles; and meat.[30/]

Structural change

The shift in focus towards the development of the hydrocarbon-rich region of western Siberia in the 1970s and 1980s caused a slowdown in the growth and diversification of industrial production in the Kyrgyz Republic. Industrial output is dominated by machine building and electronics, but both were hit severely by raw material shortages in 1992, when output dropped by 40 per cent. Other important sectors are textiles, clothing and leather. The country lacks well developed food processing and consumer goods industries, with food processing activities being limited mainly to the refining of sugar, and the production of consumer durables being dominated by refrigerators.

B. INDUSTRIAL EMPLOYMENT

Quantitative trends

The industrial sector in the Kyrgyz Republic was developed after the 1930s by Russian and Ukrainian immigrants, who continue to dominate it. They accounted for approximately 75 per cent of the industrial labour force in 1992. The ethnic Kyrgyz are concentrated in the agricultural workforce, which employs only 10 per cent of the Russian workforce.[31/]

Education and skills

As elsewhere in the former USSR, the industrial labour force in the Kyrgyz Republic lacks the business and management skills to operate in a market environment. The problem is being

aggravated by the emigration of the country's Russian-speaking managerial and bureaucratic class. Having accounted for more than 40 per cent of the republic's managers and bureaucrats in 1991,[32/] the Russian-speaking population is becoming discouraged by the weakening economy and the growth of what it perceives to be an anti-Russian attitude, resulting in the gradual replacement of Russian-speakers by ethnic Kyrgyz in senior positions in government and management. The response of many has been to return to the Russian Federation.

Official figures on the number of Russian and other Slav emigrants range from 120,000 between 1991 and 1993 to 144,000 in 1993 alone. However, the situation is serious enough to have caused the government to take firm action to encourage the expatriates to stay. In February 1994 the government announced that it would temporarily recognize dual citizenship, as well as providing increased protection for the Russian language, an increased representation of Russians in government, and public funds to assist the establishment of Russian-Kyrgyz joint ventures.

The role of women

The participation of females in the labour force appears to have declined significantly, from 48 per cent in 1975 to 42 per cent in 1989 according to official census data. This decline appears to have been caused primarily by the slowdown in economic growth and the resulting reduction of employment opportunities for women. By 1991 the official unemployment rate for women was estimated at approximately 2.4 to 2.7 times higher than that for men.

Table 37. Kyrgyz Republic: Female participation in the non-farm workforce, 1928-89, selected years
(Percentage)

	1928	1940	1950	1960	1970	1975	1989
Former USSR	..	38	46	45	48	49	..
Kyrgyz Republic	11	29	41	41	47	48	42

Sources: Lewytzkyj, Borys, *The Soviet Union: Figures-Facts Data*, K.G. Saur, Munich, 1979; World Bank, *Kyrgyzstan: Economic Report*, Washington DC, May 1994.

Table 38. Kyrgyz Republic: Official unemployment estimates, 1991-94
(Number of persons, end of period)

	1991	1992	1993	1994
Total	136	1,796	2,900	12,600
Male	39	485	..	4,900
Female	97	1,311	..	7,700

Source: State Statistics Committee.

C. PRODUCTIVITY AND PERFORMANCE

Labour productivity

The level of labour productivity was never high in the Kyrgyz Republic, and fell dramatically during the 1970s and 1980s as investment declined. In the 1970s the average figure for all central Asian republics amounted to 83 per cent of the average for the former USSR, but the figure for the Kyrgyz Republic fell to only 65 per cent in 1985 and 66 per cent in 1990.[33/]

Enterprise profitability

The Kyrgyz Republic also has a substantial number of loss-making enterprises. The 29 largest of these have been put under a care and maintenance programme administered by the Enterprise Reform and Resolution Agency (ERRA). They are to be restructured and privatized by 1998.

D. OWNERSHIP AND INVESTMENT PATTERNS

Ownership

Industrial ownership was concentrated in the hands of the state during the Soviet era, and only began to be divested to the private sector after the Kyrgyz Republic attained independence in 1991. After a slow start, the privatization programme gathered pace after mid-1994, and by March 1995 about 53 per cent of all enterprises had been privatized. Most of the large industrial enterprises in the Kyrgyz Republic have not been privatized, however, and are currently being assessed for their viability, following which some are likely to be liquidated.

Investment

Industrial investment in the Kyrgyz Republic has historically been dominated by the government. As an increasing proportion of the economy is privatized and new domestic and foreign private investment is promoted, this will change. Already, enterprises with foreign involvement accounted for 5 per cent of all investment activity in the first half of 1994.

By mid-1992 almost 330 joint ventures and 70 foreign companies had been registered in the Kyrgyz Republic, although only 110 of them were reported to be active, with a turnover of $35.5 million, or 11 per cent of total turnover. The majority of the investments, jointly accounting for 49 per cent of total foreign investment, originated from the Russian Federation, China and Turkey. The UK accounted for a further 10 per cent of foreign investment. By mid-1995 the total number of joint ventures and wholly-owned foreign corporations operating in the Kyrgyz Republic had increased to 620, with Chinese firms being the most numerous.[34/]

E. INDUSTRIAL LOCATION

About 75 per cent of the Kyrgyz Republic's manufacturing industry is located in or near the capital of Bishkek, which has a population of almost 630,000. The only other significant manufacturing centre is the country's second largest city of Osh, near the western border with Uzbekistan.

F. ENVIRONMENTAL ISSUES

The principal industry-related environmental issue that needs to be addressed in the Kyrgyz Republic is the disposal of industrial waste. The issue is gaining in importance as a result of the country's recent efforts to promote the increased exploration and exploitation of its mineral resources, as a result of which such matters as the disposal of tailings from new gold mines are generating increased concern. The disposal of tailings and industrial waste is also an important issue at the Uhzpolymetal facility in the Kara Balta region, where uranium tailings have been dumped in uncovered slagheaps and have given rise to high levels of radioactive dust in the proximity of the plant.

G. TRADE IN MANUFACTURES

The Kyrgyz Republic's trade in manufactured goods has centred on the export of machinery and metal products. Although no reliable statistics are available beyond 1992, the data for the prior years show that processed food, consisting mainly of refined sugar, and textiles have also been important exports. The country's industrial imports, meanwhile, have been dominated by chemicals and petroleum products, machinery, light industrial goods (especially consumer goods) and processed foods.

Table 39. Kyrgyz Republic: Exports and imports of selected manufactured goods, 1987-92
(Rb million)

	1987	1988	1989	1990	1991	1992
Exports						
Processed foods	578.5	526.9	528.9	515.7	1,317.0	3,721.4
Light industry	657.1	664.6	660.1	648.3	1,901.1	12,708.7
Chemicals and petroleum	23.2	24.7	24.3	23.6	218.1	940.0
Building materials	19.2	12.7	17.1	13.1	67.2	1,455.5
Ferrous metallurgy	5.8	8.2	10.5	7.7	11.8	528.2
Non-ferrous metallurgy	132.4	145.6	141.9	163.9	499.3	5,662.5
Machinery and metal products	637.7	949.7	951.0	892.6	2,017.5	21,505.2
Imports						
Processed foods	632.7	611.8	692.0	663.0	1,080.0	4,246.8
Light industry	790.2	742.3	894.7	966.2	1,513.6	5,170.6
Chemicals and petroleum	341.8	358.3	409.2	373.5	609.9	7,746.7
Building materials	61.8	68.1	71.5	80.4	84.5	737.7
Ferrous metallurgy	176.6	194.9	172.8	170.5	302.8	4,285.4
Non-ferrous metallurgy	74.6	88.6	99.2	97.5	283.2	2,509.0
Machinery and metal products	773.5	991.0	1,089.4	985.3	1,271.6	17,022.1

Source: State Statistics Committee.

With the new emphasis of the government on the development of the country's mineral resources, the overall importance of manufactured exports may decline to some extent in the near term as raw material exports begin to rise. In the medium term, however, this trend will begin to be reversed as the export of processed and semi-processed mineral products increases.

H. INTERNATIONAL COOPERATION FOR INDUSTRIAL DEVELOPMENT

Data collected by the OECD Register indicate that 51 technical assistance projects had been completed in the Kyrgyz Republic by mid-1994, the majority of which were regional in scope.[35/] In addition, the Register showed that 111 projects, most of which also had a regional coverage, were in progress at the time at an estimated cost of $29 million. The main focus of these projects was on education and training, governance and democratization, institution-building and transport. The largest donors of technical assistance to the Kyrgyz Republic are the EU, Germany, Turkey, the World Bank, the United Nations Development Programme and the USA.

UNIDO has completed one project in the Kyrgyz Republic, involving the provision of technical assistance to the Research Institute of Scientific and Technical Information (RISTI) and linking the institution to the UNIDO Industrial and Technological Information Bank and other international databases. Another UNIDO project, aimed at strengthening the capacity of government experts in the Kyrgyz Republic to identify and promote investment opportunities in a market-based economy, is in progress. In view of the urgent need to develop and restructure the country's manufacturing sector to meet the demands of the market economy, UNIDO expects to receive a number of additional requests for technical assistance in the future.

Table 40. Kyrgyz Republic: Technical assistance, 1993 and 1994

	Completed		Under way		On offer	
	1993	1994	1993	1994	1993	1994
Number of projects	31	51	84	111	18	53
Value ($ million)	4.3	2.2	25.8	28.5	13.3	36

Source: OECD Register.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

The resource base

The Kyrgyz Republic has relatively little agricultural land. Of the country's total area of 19.9 million hectares, only 10.1 million hectares (51 per cent) can be used for agricultural activities and only 1.4 million hectares (7 per cent) is arable, with meadows and pastures making up the remaining 8.7 million hectares (44 per cent) of the total land area.[36/] As a result, the country's major agricultural products are wool and meat.

In 1989 grain crops were cultivated on 40.8 per cent, vegetables on 4.1 per cent and cotton and other industrial crops on only 5 per cent of the Kyrgyz Republic's arable land. The country's total crop production is thus relatively low, and historically some 60 per cent of its food needs have been imported.

Past trends

Agricultural production has been seriously affected in recent years by adverse weather and shortages of fuel and spare parts. This decline in agricultural output has inevitably taken its toll on the food processing industry, which has also suffered a sharp fall in output.

Table 41. Kyrgyz Republic: Output of processed agricultural products, 1980-93, selected years (Rb million, constant 1982 prices)

	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
Processed foods	547	905	929	848	835	949	1,016	1,052	568	459
Meat and dairy products	339	380	410	451	456	442	431	332	215	128

Source: State Statistics Committee.

Spurred by a lack of foreign exchange with which to pay for imports, the government is actively promoting the development of food processing facilities. Since 1992 a number of existing industrial enterprises have been encouraged to invest in food processing activities. In one such project, several firms have joined with the state poultry enterprise Kyrgyzptitseprom to build a new

processing facility. Attempts have also been made to attract the participation of foreign firms in turnkey projects. In addition, private companies and individuals have been permitted to apply for licences to establish small and medium-scale enterprises in the food processing industries, with several such firms having been set up in recent years.

The dissolution of the former USSR has also severely disrupted the Kyrgyz Republic's role of sugar refiner for the central Asian region. In former years some 430,000 tonnes of raw sugar were imported and processed, and 260,000 tonnes of refined sugar were exported to the rest of the central Asian region. With supplies from the other republics having ceased, the government has sought to arrange imports of raw cane sugar from Cuba and to revive the local growing of sugar beet.

In contrast to most other agriculturally-based industries, the tobacco processing industry has performed relatively well in the recent past. Starting from small beginnings, it has expanded rapidly over the past few years and has attracted considerable foreign investment. A particularly important development in this context was the signing of an agreement with the UK firm British American Tobacco (BAT), under which the latter has agreed in principle to invest $50 million in a joint venture to develop tobacco production and processing.

Constraints and prospects

With some 60 per cent of its food requirements having to be met from imports, there is no lack of demand to support a food-processing industry in the Kyrgyz Republic. The industry's development has been hindered by the limited availability of produce and a shortage of investment funds. These problems appear unlikely to be overcome for some time.

The prospects for the tobacco industry, on the other hand, appear favourable, as indicated by the foreign interest and investment it has been able to attract. The availability of foreign technological and financial resources will facilitate improvements in the quality of the local tobacco producing and processing industries. The shortage of cigarette paper, filters and packaging materials, which forced the Bishkek Tobacco Works to sell its tobacco in bulk rather than produce cigarettes in 1992,[37/] will remain a major constraint, however, as the country has no facilities for producing them domestically and lacks the hard currency to import them.

B. TEXTILES AND CLOTHING

The resource base

The Kyrgyz Republic is the second largest producer of wool in the central Asian region, with data released by the State Statistics Committee indicating annual output levels of 30,000-40,000 tonnes in 1990-93, although this declined to 21,000 tonnes in 1994. The country also produces some cotton and raw silk, albeit at low yields and of poor quality.

Past trends

Light industry in the Kyrgyz Republic has long been dominated by the production of textiles and clothing, and the country has traditionally exported these products to the other republics of the former USSR. In line with the country's resource base, the bulk of the industry is dedicated to the production of woollen yarns, fabrics and garments. Cotton and silk fabrics are also produced,

with the output of the latter currently amounting to some 10 million metres per year. About 70 per cent of the raw silk used by the industry is sourced locally, with the remainder being imported from Tajikistan and Uzbekistan.

Table 42. Kyrgyz Republic: Production of textiles and clothing, 1980-93, selected years
(Rb million, constant 1982 prices)

	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
Textiles	925	1,193	1,223	1,229	1,354	1,406	1,377	1,407	1,264	1,126
Clothing	225	290	293	303	317	347	363	443	374	329

Source: State Statistics Committee.

The government is actively encouraging the development of the textile and garment industries, and is seeking in particular to promote the entry of small and medium-scale enterprises into the industries. A special programme has been launched to produce 250 previously imported light industrial products, many of which are ready-to-wear items of clothing. Foreign investors are also beginning to express an interest in the textile and clothing manufacturing industry. At the end of 1992 a joint venture to produce cotton underwear for children was established with the Czech company JHS, for example, which will produce goods to Czech standards for export to the Czech Republic.[38/]

Constraints and prospects

The biggest constraint facing the textile and clothing industries is the low quality of the goods produced. In order to break into new markets and re-enter old ones, the Kyrgyz Republic's products will have to be able to compete with higher quality goods produced elsewhere. In order to export to the West, the available weaving equipment will also have to be modified or replaced to enable the production of textiles with the international standard width of 150 centimetres. Fabrics produced in the Kyrgyz Republic currently have a width of only 90 centimetres.

With the necessary investment in the upgrading of facilities, the prospects for the development of a modern textile industry based on the local production of cotton and wool are favourable. Silk production, although limited relative to some other central Asian republics, also offers good prospects if quality can be improved and the supply of local raw materials expanded. Dyeing facilities will also have to be upgraded to meet international quality standards.

C. LEATHER AND FOOTWEAR

The resource base

With animal husbandry constituting one of the country's main economic activities, the Kyrgyz Republic has a strong resource base for the development of a leather products industry. In 1992 the country had a total livestock population of 20.8 million, including 1.1 million cattle and 8.4 million sheep. This number has declined significantly in the following years, however, with data

for 1994 indicating a total population of 8.6 million, including 920,000 head of cattle and 4.5 million sheep.

Past trends

Leather and shoe production rose steadily during the 1980s before plunging in 1992. In recent years foreign investment interest in the leather processing industry has been relatively high, with much of this investment being directed towards production for export markets. The Turkish firm Pramota has invested in a joint venture to process 100,000 sheepskins per year, for example, with part of the output being shipped to Turkey.

Table 43. Kyrgyz Republic: Leather and shoe production, 1980-93, selected years
(Rb million, constant 1982 prices)

1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
96	117	110	110	114	129	136	134	102	75

Source: State Statistics Committee.

Constraints and prospects

Given the strong resource base of the republic and the high level of foreign interest, the outlook for the production and export of raw and processed hides is good. With increased foreign and domestic investment, a significant increase in both the quantity and quality of the domestic leather processing and leather goods industries will be possible, which should enable the sector to become an important source of export earnings. Care will have to be taken, however, to ensure that the raw material base is exploited in a sustainable manner, and the livestock population is not reduced too dramatically.

D. PETROLEUM AND GAS PRODUCTION AND REFINING

The Kyrgyz Republic has no oil and gas production and refining industry. Although the government is keen to develop such an industry, and is putting out international tenders for the exploration of hydrocarbons, the country's current known reserves are insignificant. Unless substantial new reserves are found, the development of an oil and gas based industry appears unlikely.

E. CONSTRUCTION MATERIALS

The resource base

Along with its other abundant mineral resources, the Kyrgyz Republic possesses large deposits of non-metallic minerals that provide a strong resource base for the expansion of its building

materials industry. Facing stone, cement, ceramasite and aggloporite, construction sand, limestone and stone, sand and gravel mix, rough clay and construction ceramics, gypsum, and rodusite-asbestos are all present. Porcelain clay, graphite and decorative facing stone are thought to exist in quantities and qualities suitable for exporting.

Past trends

The production of building materials grew steadily throughout the 1980s. Despite this increase in production, the Kyrgyz Republic remained dependent on imports for all its construction materials needs except cement. With the collapse of the construction industry in 1992, however, output of construction materials also dropped by some 30 per cent, back to the levels prevailing in the early 1980s.

Table 44. Kyrgyz Republic: Production of building materials, 1980-93, selected years
(Rb million, constant 1982 prices)

1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
190	246	268	276	305	304	310	304	202	108

Source: State Statistics Committee.

The Kyrgyz Republic already produces good quality Portland 400 and Portland 500 cement, and can export 1 million tonnes with its existing production capacity. In 1993 an agreement was signed for the transfer of Russian concrete block technology to the country. As a result of this agreement, which also provided for the acquisition of the equipment needed to manufacture cellular concrete blocks, the government plans to establish five small plants throughout the country.

Constraints and prospects

The major constraint facing the development of the building materials industry is the lack of available capital for investment and the lack of packaging materials necessary for the export of many of the products. Despite the existence of excess capacity in the country's cement industry and of demand for the country's cement in foreign markets, exports on a substantial scale have been prevented by a shortage of packaging materials.[39/]

F. FERROUS AND NON-FERROUS METALLURGY

The resource base

The Kyrgyz Republic is endowed with a wide variety of both ferrous and non-ferrous ores, with known deposits of more than 115 different minerals. These include gold, iron titanium,

aluminium, copper, bismuth, tin, tungsten, mercury and antimony. Large deposits of silver are also thought to exist.

Past trends

While most of the mineral resources have yet to be exploited, some important mining and mineral processing industries have been established. The output of the metallurgical industries increased steadily during the 1980s, but began to stagnate in 1991 and dropped in 1992 as a result of the economic disruptions arising from the dissolution of the former USSR. In 1993, facing a sharp drop in output, the government targeted the sector for investment and development, and began a concerted effort to attract foreign investors.

Table 45. Kyrgyz Republic: Output of ferrous and non-ferrous metallurgical products, 1980-93, selected years
(Rb million, constant 1982 prices)

1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
134	162	186	217	252	277	296	298	266	206

Source: State Statistics Committee.

Particularly high priority is being given to the production and refining of gold, of which the Kyrgyz Republic is the seventh largest producer in the world and of which it has substantial, but as yet unquantified, reserves. These attempts to develop the gold industry have had some success, and have attracted the interest of a number of foreign investors. In May 1994 the Canadian firm Cameco entered into a joint venture with the local gold producer Kyrgyzaltyn to develop the Kumtor gold mine, which has 16.6 million fine troy ounces of reserves and should produce 500,000 ounces per year for 11 years once production commences in 1997. The US firm Morrison Knudsen is developing another major deposit at Jerui, and the integrated gold works at Makmal is being renovated and expanded to double its output in cooperation with another Canadian firm.

In addition to gold, the government is also targeting several other minerals for development and investment. Efforts have been made to establish a tin industry, and the construction of a plant producing semiconductor materials such as trichloridesilan, polycrystal silicon and quartz crucibles has also begun. Foreign investors are being sought for these areas. The production of mercury, of which the Kyrgyz Republic was the largest producer in the former USSR and of which it has estimated deposits of 45,000 tonnes, is continuing, as is the production of antimony, of which the country was the only producer in the former USSR. By contrast, however, the mining of uranium has virtually ceased.

Constraints and prospects

While the world markets for several metals are currently depressed, the outlook for the development of the metallurgical industries remains bright. The production of antimony is already at world standard and 20,000 tonnes per year are being sold on international markets. Efforts are

also being made to upgrade the technologies used for the production of mercury in an attempt to find new applications for the product and offset its fall in price. The outlook for the gold industry also appears favourable in view of the strong support it has received from the government and the high degree of interest it has attracted from foreign investors.

The government is looking to create industries that go beyond the basic extraction and processing of raw minerals in order to maximize the value added to these resources within the country. In this context it is attempting in particular to promote the development of export-oriented gold and silver jewellery industries. The success of these efforts appears uncertain, however, and will depend not only on the skill of the local craftsmen and the quality of the raw materials, but also on the ability of the craftsmen to adapt their designs to the tastes prevailing in their prospective export markets.

G. MACHINERY AND TRANSPORT EQUIPMENT

The resource base

The Kyrgyz Republic has no specific resource-based advantages for the production of machinery and transport equipment, but was selected as a location for the production of some forms of machinery for the entire former USSR in line with the policy of inter-republic specialization prevailing at the time. The requirements of the military also played an important determining role in the siting of engineering industries in the Kyrgyz Republic, with much of the output of the country's heavy electrical machinery industry being specifically designed to support the defence industry of the former USSR.

Past trends

Although also an importer of many kinds of machinery, the Kyrgyz Republic was a net exporter in this sector, primarily due to the large quantities of agricultural equipment supplied to the rest of the former USSR. The loss of this market has had serious effects on the sector and production dropped sharply in 1992. The State Statistics Committee reported that in 1993 the production of other machinery such as metal-cutting lathes, forging machines, electrical machinery and fork lifts fell by some 50 per cent.[40/]

Table 46. Kyrgyz Republic: Output of the machine building and metalworking industries, 1980-1993, selected years
(Rb million, constant 1982 prices)

1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
962	1,132	1,231	1,300	1,387	1,376	1,354	1,397	906	534

Source: State Statistics Committee.

Constraints and prospects

The most serious constraint facing the machinery and transport equipment industry is the decline in demand for its goods following the loss of its traditional markets in the other countries of the former USSR. For most products it will be some time before demand recovers or new markets can be found, and for the producers of these goods the only hope for survival will lie in a shift to production of goods for which demand does exist, including a wide range of consumer goods. Several enterprises have begun to make this transition to the production of consumer goods. This trend is exemplified by the Frunze agricultural engineering enterprise in Bishkek, which has already modernized its main factory and converted much of its production from agricultural machinery to 25 different kinds of durable consumer goods, including washing machines and electrical heating equipment.[41/]

H. CONSUMER GOODS

The resource base

The existence of a number of engineering enterprises previously used to produce capital goods and military equipment of various kinds provides the Kyrgyz Republic with a foundation for the development of an industry for the production of durable consumer goods. The conversion of these enterprises to the production of consumer goods will, however, require considerable investment in the restructuring of existing production systems, the retooling of plant and equipment, and the retraining of staff in order to enable them to optimize the use of their capital and human resources in new activities.

Past trends

The Kyrgyz Republic has traditionally produced almost no consumer goods except refrigerators, and has been highly dependent on imports to meet its demand for such goods, with some 400 varieties of consumer goods being imported during the 1980s.[42/] In response to the country's inability to finance consumer goods imports following the dissolution of the former USSR, the government initiated a crash programme to promote the domestic production of 250 priority consumer goods, and to encourage the entry of small and medium-scale enterprises into the industry. Despite these efforts, the State Statistics Committee reports that the production of refrigerators, video recorders and microwave ovens stopped completely in 1993, while the production of household goods was cut by 25 per cent.[43/]

Constraints and prospects

While there is clearly a demand for consumer goods, and the outlook is bright for the production of many goods given the available resources and the need to convert military facilities, the latter will require significant capital investment which is not immediately available. The sale and servicing of consumer goods will also require marketing and related skills that are currently in short supply. Management training will be a crucial element to ensure the success of this sector.

NOTES TO CHAPTER TWO

1/ The term Kara-Kyrgyz was used by the Russians to distinguish the Kyrgyz from the Kazakhs, whom they called Kyrgyz at the time.

2/ The availability of accurate and reliable macroeconomic statistics on the Kyrgyz Republic is extremely limited. The estimates presented in this paragraph are drawn from a variety of sources, including publications issued by the World Bank, the International Monetary Fund, the European Bank of Reconstruction and Development and the Economist Intelligence Unit.

3/ World Bank, *Statistical Handbook 1995 – States of the Former USSR,* Washington DC, 1995; The Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 4th Quarter 1995,* London, 1995.

4/ The Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 1st Quarter 1996,* London, 1996.

5/ *Oil and Gas Journal,* "Kyrgyzstan: problems and opportunities", 15 March 1993.

6/ Kitson, Andrew, "Telecommunications Development in the Former Soviet Union", *Foreign Trade and Investment Review 1994,* London, 1993.

7/ For a review of the structure of the banking system, see International Monetary Fund, *Economic Review: Kyrgyzstan,* Washington DC, May 1992. Annex 2.

8/ For a detailed review of the economic liberalization programme in the Kyrgyz Republic see World Bank, *Kyrgyzstan – The transition to a market economy,* Washington, DC, 1993.

9/ International Monetary Fund, Staff contribution to consultive meeting, June 1994; the Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 3rd Quarter 1995,* London, 1995.

10/ International Monetary Fund, Staff contribution to consultative meeting, June 1994.

11/ Business Information Service for the Newly Independent States, *The Kyrgyz Republic tariff schedule,* United States Department of Commerce, Washington DC, 1993.

12/ Business Information Service for the Newly Independent States, *The Kyrgyz Republic tariff schedule,* United States Department of Commerce, Washington DC, 23 May 1994.

13/ Business Information Service for the Newly Independent States, *Current agreements with Kyrgyzstan,* United States Department of Commerce, Washington DC, 9 May 1994.

14/ World Bank, *Kyrgyz Republic: Economic Report,* Washington DC, May 1994.

15/ World Bank, *Kyrgyz Republic: Economic Report,* Washington DC, May 1994.

16/ The remaining 14 per cent, located in minority areas, employ chiefly the Uzbek and, to a much lesser extent, Tajik languages as the medium of instruction.

17/ Text published in *Slovo Kyrgyzstana,* 17 January 1992.

18/ International Monetary Fund, *Economic Review: Kyrgyzstan,* Washington DC, May 1992.

19/ World Bank, *Kyrgyzstan – The transition to a market economy,* Washington DC, 1993.

20/ Business Information Service for the Newly Independent States, *Commercial overview of Kyrgyzstan,* United States Department of Commerce, Washington DC, 17 May 1994.

21/ Text published in *Slovo Kyrgyzstana*, 27 January 1992.

22/ The Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 4th Quarter 1994,* London, 1994.

23/ The duration of the tax holiday provided for other sectors is not as long. It amounts to three years in the case of investments in mining and agriculture, and two years for trade, banking and other services.

24/ International Monetary Fund, *Economic Review: Kyrgyzstan,* Washington DC, May 1992.

25/ World Bank, *The Kyrgyz Republic: Economic Report,* Washington DC, May 1994.

26/ The Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 1st Quarter 1995,* London, 1995.

27/ Business Information Service for the Newly Independent States, *Kyrgyzstan – Economic and trade overview,* Market Reports, United States Department of Commerce, Washington DC, 9 May 1994.

28/ World Bank, *Kyrgyzstan – The transition to a market economy,* Washington DC, 1993.

29/ Reuters Textline, *Kyrgyzstan: liquidation of loss-making companies begins,* 12 May 1994.

30/ Narzikulov, R., Speech to Conference on "Economic Consequences of Soviet Disintegration", Vienna, April 1992.

31/ Narzikulov, R., Speech to Conference on "Economic Consequences of Soviet Disintegration", Vienna, April 1992.

32/ Narzikulov R., Speech to Conference on "Economic Consequences of Soviet Disintegration", Vienna, April 1992.

33/ Narzikulov, R., Speech to Conference on "Economic Consequences of Soviet Disintegration", Vienna, April 1992.

34/ The Economist Intelligence Unit, *Country Report: Kyrgyz Republic, 2nd Quarter 1995,* London, 1995.

35/ The OECD Register is a primary source of information with respect to technical assistance to the countries of central and eastern Europe and the former USSR. Reporting to the Register is on a voluntary basis, as a result of which the information contained is incomplete. In particular, it does not cover assistance provided by a number of multilateral donor agencies.

36/ United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of a mission to the Central Asian Republics,* Bangkok, 8 October 1993.

37/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, February 1992.

38/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, January 1993.

39/ United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of ESCAP mission to Azerbaijan, Kyrgyzstan, Turkmenistan and Uzbekistan,* Bangkok, 20 May 1993.

40/ State Statistics Committee, as reported by UNIDO national consultant.

41/ The Economist Intelligence Unit, *East European Industrial Monitoring Service,* London, February 1994.

42/ United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of ESCAP mission to Azerbaijan, Kyrgyzstan, Turkmenistan and Uzbekistan,* Bangkok, 20 May 1993.

43/ State Statistics Committee, as reported by UNIDO national consultant.

CHAPTER THREE: TAJIKISTAN

I. THE MACROECONOMIC AND INDUSTRIAL POLICY ENVIRONMENT

A. RECENT ECONOMIC TRENDS

The historic and Soviet periods prior to 1991

As the Russian Empire advanced southwards in the 19th century, the northern parts of what is now Tajikistan came under Czarist rule. The southern parts were annexed by the Emirate of Bukhara in Uzbekistan. In 1918 the Bolsheviks took control of the northern regions, which were incorporated into the Turkestan Autonomous Soviet Socialist Republic (ASSR). Dushanbe and the southern regions were not conquered until 1921, however, and full Soviet control over the south-east was not established until 1925.

In 1924 the Tajik ASSR was established as part of the Uzbek Soviet Socialist Republic (SSR), and in January 1925 the south-east was designated the Special Pamir Region (later renamed the Gorno-Badakhshan Autonomous Region) within the Tajik ASSR. In October 1929 Tajikistan became a full union republic and was expanded by the addition of the Khojand district, which had previously been a part of Uzbekistan.

During the period of Soviet rule, Tajikistan's economy was gradually transformed from being strictly rural and nomadic to one with a strong and highly mechanized agricultural base supplemented by an industrial sector based on the primary processing of raw materials. Despite large volumes of investment and union transfers, however, the income per head of the republic remained low, at some 55 per cent of the average for the former USSR as a whole. In 1992 the country's income per head amounted to only $480.

Tajikistan's contribution to the overall economy of the USSR at the time of the country's independence in 1991 was marginal. The country accounted for only 0.8 per cent of total Soviet NMP, with its share of industrial NMP amounting to only 0.4 per cent and its share of agricultural NMP amounting to an only slightly more impressive figure of 1.2 per cent. It was also one of the more self-contained republics of the former USSR, with only 41.8 per cent of NMP accounted for by exports. By contrast, many of the USSR's other constituent republics were dependent on the broader union market for up to 90 per cent of their output.

After growing at an average annual rate of only 2.5 per cent in 1980-85 and 4.7 per cent in 1986-88, the economy of Tajikistan began to contract in 1989, when NMP fell by 2.9 per cent. This contraction was distributed relatively unevenly between sectors, however. While agricultural output began to decline in 1989, the industrial sector continued to be supported by public investment and union transfers until 1991. This support ended with the dissolution of the USSR, following which industrial output also fell into a steep decline.

Table 47. Tajikistan: Economic growth performance, 1988-94
(Real percentage change)

	1988	1989	1990	1991	1992	1993	1994
NMP	12.1	-2.9	-1.6	-12.5	-33.7	-27.6	-25.0
Agriculture	10.9	-13.0	-9.2	-9.9	-27.7	..	..
Industry	15.0	1.9	1.9	-7.4	-35.7	..	..
Other	5.8	6.4	2.2	-26.8	-47.2	..	..

Sources: State Statistics Committee; European Bank for Reconstruction and Development, *Transition Report*, London, October 1994.

The period since 1991

Economic conditions in Tajikistan have deteriorated considerably since 1991. Industrial production plummeted with the dissolution of the USSR and the resulting disruption to trade, and the situation was exacerbated by the outbreak of a civil war in 1992, which has persisted to the present and has caused intense human suffering and severe infrastructural damage. Between 1992 and 1993 some 50,000 people were killed and 850,000 were displaced, with 150,000 fleeing to neighbouring countries. Extensive flooding of the Yakhsu and Kyzylsu rivers north of the Kulyab region in southern Tajikistan added to the country's troubles, with serious damage being done to villages, flood control dykes, cultivated land, roads and bridges.

In 1993 Tajikistan's GDP fell by 27.6 per cent, and is officially estimated to have fallen by a further 21 per cent in 1994 and 12 per cent in 1995.[1/] At the end of 1993 industrial output was estimated at only 50 per cent of the 1990 level and 40 per cent of the 1989 level, and enterprises in the southern Dushanbe region were operating at 50 per cent of their installed capacity. In 1993 the disruption in oil supplies from the other republics of the former USSR created a major fuel shortage, which further crippled industrial production and transportation. In Dushanbe only three of the city's 17 power plants were operating.[2/] More recent estimates suggest that industrial output fell by a further 45 per cent in 1994 but improved in the third quarter of 1995.

The drop in output resulted in staggering budget deficits as the government raised subsidies and wages in an attempt to maintain living standards. In 1992 the budget deficit reached almost 30 per cent of GDP, and was reduced only modestly, to 24 per cent, in 1993. These figures do not adequately reflect the true situation, moreover, because the republic has continued to obtain some financing from the central bank of Russia as a result of its decision to remain in the rouble zone.[3/]

Price reform began in Tajikistan in April 1991, when controls were lifted on most goods and the prices of those that remained subject to government control were increased significantly. In January 1992 a second round of reforms was initiated and price controls on 80 per cent of goods were lifted. Prices of only eight industrial goods and 15 consumer goods remained controlled although they accounted for approximately 15 per cent of the value of all goods and services traded in the country.[4/] Further rounds of price liberalization have resulted in the lifting of most remaining price controls including, in mid-1995, the politically sensitive controls on bread products.

The price liberalization measures contributed to a surge in inflation to 95 per cent in 1991, and a further acceleration in the following years. The rate of consumer price increases in January 1992 alone amounted to 200 per cent, and continued to rise over the course of the year. In 1993 the consumer price index was estimated by the IMF to have increased by 2,195 per cent,[5/] although subsequent estimates by the EBRD suggest a slowdown in inflation to 341 per cent in 1994 and 120 per cent in 1995.[6/]

The external shocks, together with the civil war, have resulted in a collapse of Tajikistan's foreign trade. While the country was traditionally less dependent on foreign trade than many of its neighbours in the former USSR, its exports and imports still accounted for 36.5 per cent and 56.2 per cent of NMP respectively in 1990. By 1992 the volume of trade had declined sharply as Tajikistan was unable to honour many of its trade commitments and its partners stopped delivering to the republic.

In 1991 the drop in imports led to a small surplus in merchandise trade, but by 1992 this improvement had been reversed. The country's trade with the other republics of the former USSR remained in deficit in 1993 and 1994, although modest surpluses were recorded on its trade with other countries. Estimates prepared by the EIU in early 1996 suggest that Tajikistan ran a trade deficit of $480 million with the CIS and a surplus of $120 million with on-CIS countries in 1995.[7/]

This trend has been accompanied by a significant shift in the direction of trade. The share of the country's exports to the other republics of the former USSR fell from 79 per cent of total exports in 1991 to 34.7 per cent by the first half of 1993. Similarly, the share of imports from within the former USSR dropped from 84 per cent in 1991 to 54.2 per cent in 1992. Official data published at the end of 1995 indicate that CIS countries accounted for only 59 per cent of overall trade in the first nine months of 1995. Most of the CIS trade consisted of imports, while trade with the non-CIS countries was dominated by exports. This shift in the trade pattern has been interpreted as reflecting both the country's lack of hard currency and its desire to sell its commodities on world markets.[8/]

B. THE ECONOMIC STRUCTURE

The physical environment

Tajikistan is located in the south-east of central Asia and covers an area of 143,100 square kilometres. It is bordered to the north by Uzbekistan and to the north-east by the Kyrgyz Republic. Its other neighbours include the People's Republic of China in the east and Afghanistan in the south. The territory of Tajikistan also includes the Gorno-Badakhshan Autonomous Region.

Tajikistan's terrain is mostly mountainous, comprising a number of major mountain ranges including the Pamirs in the south-east, the Tien Shan in the north, and the southern Tien Shan in the central regions of the country. More than 50 per cent of the country's territory consequently lies at elevations of more than 3,000 metres, and less than 7 per cent of it is arable. The country has an extensive network of rivers, most of which are fed by glaciers in the upper reaches of the mountains. These include the Zeravshen river which flows through the centre of the republic, and the upper reaches of the Syr-Dar'ya and Amu-Dar'ya, of which the latter forms the country's border with Afghanistan.

Because of the differences in altitude, the climate varies considerably across Tajikistan. In the lowland area of Khojand (formerly Leninabad) the average January temperature is -0.9°C while the average July temperature is 27.4°C. The variation is even more extreme in the southern lowlands. In the mountains the temperature averages -19.6°C in January, but can fall to -45°C. Rainfall is low throughout the country, with precipitation in the valleys ranging from 150 millimetres to 250 millimetres per year, and rarely exceeding 60-80 millimetres in the mountains.

The demographic base

Tajikistan had a population of 5.4 million in 1991, equivalent to 0.6 per cent of the total population of the former USSR. The population has been growing rapidly, however, and the country has a population growth rate of about 3 per cent, the highest of all republics of the former USSR. This has been the principal cause of the low rates of growth in income per head experienced by the country.

Ethnic Tajiks constitute the majority of the population, with a share of 62.3 per cent in 1991. Uzbeks form the most important minority group, and accounted for 23.5 per cent of the total population, while Russians accounted for 7.6 per cent. Other minorities include Kyrgyz, Ukrainians, Germans, Turkmen, Tatars and Koreans.

The Tajik language, which replaced Russian as the official language in 1989, is closely related to Farsi (Persian). The predominant religion in the country is Islam, with most people following the Sunni tradition. The mountain peoples of the Pamirs constitute an important exception to this general rule, however, and tend mostly to be members of the Shi'ite Isma'ili sect.

Tajikistan is predominantly rural, with 70 per cent of the population living in the countryside. The population is concentrated in the valley regions of the north, of which the Fergana Valley is the most important, and the south-west. Dushanbe, the country's capital, is the largest city with a population of 600,000. The second largest city is Khojand with a population of 163,000.

About 250,000 ethnic Russians, Russian Jews and Germans are estimated to have left Tajikistan following the country's independence and the ensuing civil war. These emigrants included some of the country's most educated and trained people, which has resulted in severe shortages of qualified personnel in industry, healthcare and government administration.

Agriculture

Tajikistan's economy is dominated by the agricultural sector. In 1990 more than 36 per cent of the country's net material product was generated by agriculture, which employed almost 43 per cent of the labour force. As a result of the sharp fall in agricultural production in the next two years, however, the sector's share in NMP fell to about 15 per cent in 1992, although a subsequent recovery in output raised the share to about 25 per cent in 1994.

Because of its mountainous terrain and limited supplies of arable land, the sector is highly irrigated and highly mechanized. This has resulted in the achievement of yields well in excess of those recorded in neighbouring countries, although they still fall below those achieved in the West. The country's main crops include cotton, grain and horticultural products, although animal husbandry is also important.

Table 48. Tajikistan: Land use, 1989

	Million hectares	Percentage
Total land area	**14.3**	**100**
Agricultural land	4.3	30
Of which:		
Arable	0.8	6
Irrigable	0.7	88[a/]
Meadows and pastures	3.5	24
Non-agricultural	10.0	70

Source: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of a mission to the Central Asian Republics*, Bangkok, 8 October 1993.

a/ As a percentage of arable land.

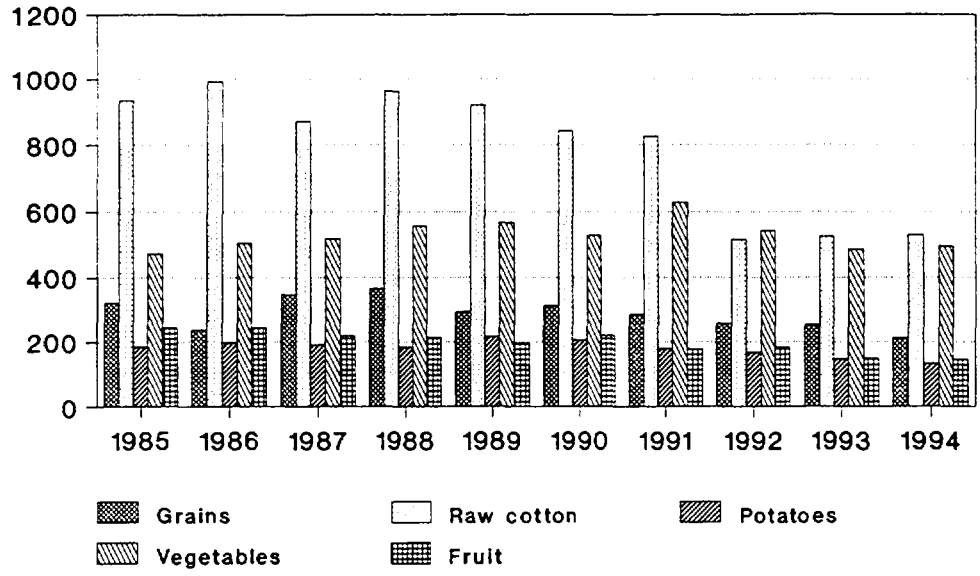
Before the dissolution of the USSR Tajikistan exported large quantities of fruits, vegetables and tobacco, both processed and raw, and was also an exporter of wine. The sector is dependent upon imported fuel, fertilizers, feed and machinery, however, and shortages of these goods have severely disrupted agricultural production, which has also suffered from the effects of the civil war. Despite the republic's position as a food exporter, almost 75 per cent of its cereal requirements, all sugar, and many processed fruits and vegetables had to be imported in 1993.

Table 49. Tajikistan: Land use by crop, 1989

	Percentage of arable land
Cereals	23.3
Industrial crops (mainly cotton)	40.0
Vegetables	30.3
Others	6.4

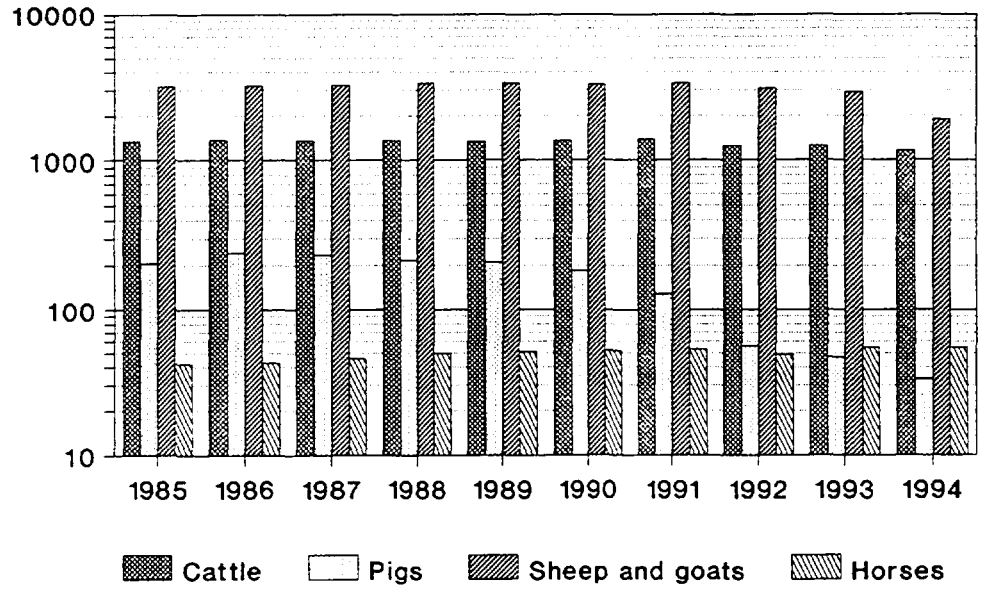
Source: United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Report of a mission to the Central Asian Republics*, Bangkok, 8 October 1993.

Fig. 17. Tajikistan: Agricultural production
(Thousand tonnes)



Source: State Statistics Committee.

Fig. 18. Tajikistan: Animal husbandry
(Thousand animals)



Source: State Statistics Committee.

Cotton is the main cash crop grown in Tajikistan, and the production of cotton has traditionally accounted for more than 40 per cent of the irrigated land under cultivation and 35 per cent of the total cultivated area. The industry has been severely disrupted by the civil war, however, and there has been a sharp decline in output. Data collected by the World Bank show that cotton production fell by 38 per cent between 1991 and 1992,[9/] while other researchers have indicated that only 9-10 per cent of the normal cotton crop was harvested in 1992 and 1993.[10/] After a modest recovery in 1994, output of raw cotton is estimated to have fallen by a further 21 per cent in 1995.[11/]

The private sector has historically played an important role in agricultural production in Tajikistan, which had one of the highest rates of private agriculture in the former USSR. In 1989 private plots accounted for 4.8 per cent of arable land and produced 24.5 per cent of gross agricultural output.[12/] Almost 75 per cent of the republic's cattle and 50 per cent of the sheep are privately owned. In 1990, private farming accounted for 18.9 per cent of total employment.[13/]

Mining and energy

Despite its position astride two major hydrocarbon basins, the Fergana Basin and the Afghan-Tajik Depression, no significant deposits of oil or gas have been discovered in Tajikistan. The limited production that did exist has also collapsed since 1987 due to a combination of maturing fields, a sharp drop in investment, poor reservoir management, political instability and war damage to facilities, and the country depends on imports to meet most of its energy needs.

The potential for developing Tajikistan's oil and gas resources is regarded as questionable. Although it is believed possible to tap the resources of the Fergana Basin by drilling deep wells along the lines pioneered by Uzbekistan, and although significant quantities of natural gas and condensates are believed to exist at deeper levels in the south-west of the country, further exploration and development of these regions will depend on the country's ability to attract foreign investors with the needed technical know-how and funds. Such investment is likely to be deterred in the short term by the lack of political stability, and little progress is likely to be achieved as a result, even though some exploration for natural gas is under way at present.

In the absence of any significant oil and gas production, Tajikistan's principal source of primary energy is hydroelectric power. This covered 36 per cent of the country's primary energy needs in 1990, and is capable of considerable further development.[14/] By contrast, the known deposits of coal are not economically viable due to a variety of reasons including poor quality and inaccessibility.

Tajikistan is well endowed with other minerals. The country has more than 30 important gold deposits and produces 2.5 tonnes of gold per year. In addition, it also has large lead, zinc and silver deposits, as well as a number of rare elements such as uranium, radium, arsenic and bismuth. The further exploration and development of these resources is regarded as an urgent priority by the government.

Production of gold is targeted to double over the next five years. The government's development plan also calls for the expansion of domestic processing capacity to permit the local production of finished metals and hence increase the domestic value added of the country's mineral exports. Prior to 1991 all minerals mined in Tajikistan were exported in the form of concentrates to neighbouring republics for further processing. Gold, silver, lead and zinc concentrates were shipped to Chimkent in Kazakstan, and antimony and mercury concentrates to the Kyrgyz Republic. To increase the local processing of gold, a major new plant was opened at the gold

mine at Taror in 1994. An existing plant at Kansai, which was originally built for the processing of lead and zinc, has also been re-tooled for the processing of gold.

Manufacturing

The share of manufacturing industry in Tajikistan's NMP amounted to 27.4 per cent in 1990, when agriculture was the dominant sector of the economy with a share of 36.7 per cent. The contribution of the manufacturing sector increased to some 60 per cent during the next two years, however, as the economic dislocations caused by the dissolution of the former USSR resulted in a sharp contraction of the service industries in 1991 and a dramatic decline in agricultural output in 1992. Since then, the share of the manufacturing sector in NMP has stabilized at 45-50 per cent.

The manufacturing sector also plays a significant role in employment creation. In 1990 it accounted for 13.4 per cent of the labour force, and this share has only declined modestly in the following years. In 1993, the latest year for which comprehensive employment data are available, it amounted to 11.8 per cent.

Although the average number of employees in the country's industrial enterprises is relatively low at 133 compared with the other republics of the former USSR, where the corresponding figure for Uzbekistan is 433 and for the Baltic states approximately 800,[15/] Tajikistan's industry is nevertheless very labour intensive. By contrast, the sector's capital intensity is comparatively low at only 40 per cent of the average for the former USSR as a whole.[16/] Industrial production is dominated by light manufacturing, the most important branch of which is the textile industry, comprising textile mills, cotton cleaning mills, silk factories and garment manufacturers.

Table 50. Tajikistan: Industrial origin of net material product, 1985-94, selected years
(Percentage)

	1985	1990	1991	1992	1993	1994
Agriculture	36.7	36.8	43.9	15.4	30.6	25.4
Industry	35.0	27.4	30.6	60.0	47.3	46.3
Construction	12.3	14.1	12.8	11.3	15.0	16.1
Transport and communications	3.4	4.0	2.6	3.9	2.0	4.5
Others	12.5	17.8	10.1	9.4	5.0	7.7
Net material product	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washkington DC, 1995.

In 1990 Tajikistan's industrial sector consisted of 373 state-owned enterprises, although the bulk of the country's industrial output was accounted for by a relatively small number of large enterprises, such as the Regar aluminium plant to the west of the capital Dushanbe, which processes imported alumina using local hydroelectric power. It has an annual capacity of 517,000 tonnes and produced 15 per cent of the former USSR's output of aluminium.[17/] Tajikistan also has several metal-working and machine-building plants, the output of which was estimated to

account for about 4 per cent of the corresponding figure for the former USSR as a whole.[18/] The country is also the region's largest producer of refrigerators, washing machines and freezers.

Apart from these major enterprises, a large number of the state-owned enterprises are engaged in the processing of local raw materials, tanning, the manufacture of leather goods and carpet weaving. Of the 60 goods classified as "most important" in the former USSR, Tajikistan produced only nine: metal-cutting lathes, caustic soda, cotton fibre, cotton fabric, socks, stockings, textiles, vegetable oil and refrigerators.

Transport and communications

Tajikistan has road, rail and air transport facilities. There are approximately 9,500 kilometres of paved roads in the country, and about 16,000 kilometres of urban and private roads. The network reaches most of the inhabited parts of the republic and is fairly dense in populated areas.

As in most of the other republics of the former USSR, the condition of the roads is not good. A 1994 survey by the World Bank found that 25 per cent of the paved roads were in poor condition and would require reconstruction, while a further 50 per cent needed some rehabilitation. The Bank estimates that it will take $500 million to upgrade the system.[19/] The fleet of trucks and buses is also old and nearing the end of its serviceable life.

The railway system in Tajikistan is limited to two single-track lines with a total track length of 418 kilometres; this deficiency is largely due to the country's mountainous terrain. These lines connect Dushanbe and the agricultural region in the south-west of the country with southern Uzbekistan. Lines then extend via Turkmenistan to the rail system of the former USSR. In addition, the country has two seldom-used narrow gauge rail lines.

In the north, the rail line linking Tashkent with the Fergana Valley crosses Tajikistan and serves the Khojand area. The southern railway has approximately 47 locomotives, 1,400 freight wagons and 215 passenger cars. The World Bank estimates that while the system does not need expanding this rolling stock will need replacement, and that some 40 per cent of the locomotives and freight cars should be retired.

Air transport in Tajikistan is relatively well developed. The country has four main airports, of which the two largest are located in Dushanbe and Khojand and can accommodate international traffic except for large wide-bodied jets. Tajik airlines inherited 14 Tu-154 aeroplanes equivalent in size to a Boeing B-727 from Aeroflot.

The telecommunications system in Tajikistan was the least developed of all the republics of the former USSR. The technology employed by the system dates from the 1940s and 1950s. This obsolescent technology, combined with the damage inflicted by the civil war and natural disasters, has left the system in a state of near collapse.

The existing telecommunications system is unable to cope with the current level of demand, let alone the requirements of structural transformation and future growth. International services are limited to the republics of the former USSR, and domestic long-distance links are only available from the cities of Dushanbe, Khojand, Kurgan-Tyube, Kulyab and Khorog. Customers in Dushanbe also have direct-dial access to other republics of the former USSR.

According to local estimates, some 77,000 applications for connection to the telephone service are outstanding. The total outstanding demand, however, is estimated at 300,000 lines. More than 3,000 localities have no service at all.

Efforts to improve services and link the republic with international satellites have already begun. In this context, a 60-channel satellite earth station and digital exchange to connect 2,500 local customers is being installed in Dushanbe. The project is financed by the government of Turkey.

Table 51. Tajikistan: Availability of telephone lines, 1990[a/]

	All phone lines (Thousand)	Residential phone lines (Per thousand)
Total	**164**	**31.2**
Urban	139	82.6
Rural	25	7.0

Source: The Economist Intelligence Unit, *East Europe Industrial Monitoring Service,* London, 1992.

a/ Information from the International Telecommunications Union and Telecom Information Services Ltd indicates a higher level of telephone access, however. Their figures are 257,000 total lines and 4.9 lines per 100 people at the end of 1991. (Kitson, Andrew, "Telecommunications development in the former Soviet Union" in *Foreign Trade and Investment Review 1994,* London, 1993, p. 283.)

Banking and finance

In February 1991 legislation was passed establishing a two-tier banking system comprising the National Bank of Tajikistan (NBT), which assumed the role of the central bank, and a number of commercial banks.[20/] The NBT was established from the local branch of Gosbank,[21/] while the commercial banks arose from the conversion of the former specialized state-owned banks of the Soviet era, namely the Tajik Orienbank (the industrial bank), the Agroprombank (the agricultural bank) and the Tajik Bank. The local branch of the Vnesheconombank became Tajvnesheconombank, and functions as the agent for servicing the country's external debt and managing its foreign reserves for the Ministry of Finance.

The NBT has been granted little real independence by the government, and acts largely as an intermediary for the disbursement of credits allocated on the basis of past central funding procedures and regulations. Very little other reform has taken place in the banking sector. The regulations governing the NBT are largely those of the former USSR, as is the accounting system used by the NBT and the commercial banks. Interest rates also remain subject to government control. To add to the industry's problems, moreover, its skill base has been eroded by the exodus of Russian-speaking professionals from the country.

Although it was expected that the former specialized banks would expand their activities and measures were adopted to permit the entry of new banks, competition in the banking sector is still very weak. More than 95 per cent of total bank lending in the country since 1992 has been accounted for by the three former specialized banks,[22/] and the vast majority of the new banks are owned by state-owned enterprises and function mainly to give their owners access to credits.

In 1994 there were 13 banks in Tajikistan. Two of these were state banks, the savings bank Sberbank and the newly established bank for reconstruction and development known as the

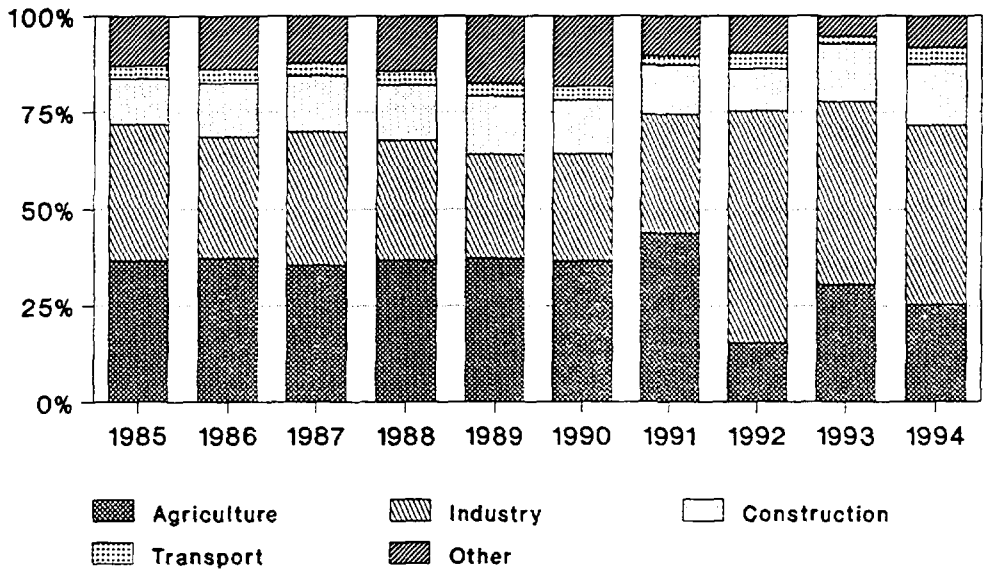
Khatlon Bank. Sberbank is largely engaged in collecting savings deposits at its 541 branches, which it passes on to the central bank. The NBT, in turn, provides the funds to the commercial banks for onward lending. The 11 other banks take the form of joint-stock banks, commercial banks and cooperative banks. The latter two types do not issue equity and must rely solely on their founders to raise capital. Besides Sberbank, only Agroprombank has a significant branch network, with 54 offices across the country.

Trade, tourism and other services

Tourism has not played an important role in Tajikistan to date even though the country possesses some of the world's most beautiful scenery. There are abundant mountain lakes, rivers and wildlife on the basis of which to develop an "eco-tourism" industry. To take advantage of the opportunity provided by these natural resources, however, a great deal must be done to preserve them. The Marco Polo sheep is currently being hunted close to the point where it will not be able to regenerate, for example, and the system of national parks needs to be expanded. However, the development of the sector is constrained by a lack of public resources and private investment interest, the effects of which have been aggravated by the civil war.

Trade and services have also not played a significant role in the economy of Tajikistan. The share of wholesale trade in NMP fluctuated around 4 per cent throughout the 1980s and accounted for less than 10 per cent in 1992. Services, meanwhile, accounted for less than 8 per cent. As the country proceeds with its transition to a market-oriented economy, the contribution of both the trade and services sectors to the economy will rise.

Fig. 19. Tajikistan: Net material product
(Percentage share)



Source: State Statistics Committee.

Demand structure of GDP

Throughout the 1980s Tajikistan maintained a highly negative resource balance which was financed by transfers from the union. Private consumption accounted for the bulk of demand in the republic, rising to 84 per cent in 1990. Demand fell sharply in the early 1990s as a result of the economic dislocations associated with the dissolution of the former USSR and the subsequent outbreak of civil war, with preliminary data published by the World Bank indicating that consumption may have fallen by as much as 22 per cent in real terms in 1991 and 27 per cent in 1992.[23/] These data may exaggerate the true extent of the contraction in demand, which may have been partially eased by dissaving and an increase in black market activity.

Investment is likely to have contracted most severely in 1990-92. The latest available data published by the World Bank thus suggest that investment fell by 15.1 per cent in 1991 and by 36.5 per cent in 1992, while budgeted expenditure for 1993 showed public investment to account for only 5 per cent of NMP. This dramatic drop in investment is the result not just of the loss of union transfers, but of the virtual halt in investment activity since the second half of 1992 due to the civil war.

Table 52. Tajikistan: Structure of demand, 1985-93, selected years
(Percentage of NMP)

	1985	1990	1991	1992	1993
National income produced (Net material product)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
National income used	119.3	109.8	100.4	116.0	..
Consumption	88.0	93.8	83.3	91.9	58.4
Private	78.4	83.6	75.0	..	..
Social	9.6	10.2	8.3	..	..
Investment	29.6	16.0	15.4	14.8	33.5
Losses	1.7	-	1.6	9.3	..
Resource balance[a/]	-19.3	-9.8	-0.4	-16.0	..

Source: World Bank. *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

a/ Difference between national income produced and used, except for 1992 which is a figure for the actual trade deficit.

External trade and payments

As a result of the specialization of both the country's agricultural and industrial sectors, Tajikistan has been dependent on imports for a wide range of food and industrial products as well as oil and oil-related products. During 1987-90 approximately 80-90 per cent of its trade was confined to the other republics of the former USSR, and the country imported a wide range of capital goods, energy products, intermediate and consumer goods, and food products. On the whole, however, the republic was less dependent on the former USSR as a market than many of the other republics. In 1990, exports to countries outside the former USSR amounted to 21 per cent of total

exports, but by 1993 this share had risen to 61.5 per cent and is likely to have grown further since then.

Table 53. Tajikistan: Distribution of inter-republic trade, 1991-94
(Percentage of total)

	1991	1992	1993	1994
Exports				
Belarus	3.4	4.1	5.6	2.8
Kazakstan	12.9	14.7	13.7	9.2
Lithuania	0.7	0.2	3.8	12.4
Russian Federation	54.8	47.5	52.6	42.0
Turkmenistan	3.0	4.3	2.9	1.6
Ukraine	7.8	11.7	4.2	4.6
Uzbekistan	7.6	8.9	17.0	20.6
Imports				
Kazakstan	10.4	12.2	32.9	13.2
Kyrgyz Republic	7.7	2.0	1.1	0.4
Russian Federation	40.9	46.7	42.1	24.4
Turkmenistan	6.4	14.5	13.1	15.9
Ukraine	9.2	7.3	2.2	5.5
Uzbekistan	11.8	11.0	32.9	33.5

Source: State Statistics Committee.

Table 54. Tajikistan: Main trading partners outside the former USSR, 1993 and 1994
(Percentage)

	Exports		Imports	
	1993	1994	1993	1994
Austria	4.6	4.5	3.5	3.4
Belgium	7.2	7.9	7.5	7.7
Finland	3.8	4.7	1.1	-
France	-	-	11.5	0.7
Germany	0.4	3.4	2.1	1.7
Ireland	-	-	2.9	0.3
Japan	8.4	2.9	0.5	-
Netherlands	54.4	38.7	44.1	5.4
Norway	-	3.1	1.6	2.3
Sweden	7.2	0.3	9.1	0.7
Switzerland	0.4	11.8	1.1	32.9
United Kingdom	0.8	7.9	1.6	22.8
United States	9.1	7.1	8.8	10.7

Source: State Statistics Committee.

The range of Tajikistan's exports has traditionally been very narrow, with products such as aluminium, cotton and textiles accounting for about 60 per cent of total exports. Other exports include tobacco, fruits and vegetables, and leather products. In 1990 the main exports to countries beyond the boundaries of the former USSR consisted of aluminium and cotton, followed by a very small amount of light machinery. Tobacco, fruits and leather are now also finding markets in countries such as Pakistan and China, largely through barter agreements, and the country has a considerable unrealized potential to supply the world market with cotton.

Table 55. Tajikistan: Composition of foreign trade, 1990
(Rb million, foreign trade prices)

	Inter-republic	Extra-republic	Total
Exports			
Primary goods	502	281	783
Food	171	2	173
Manufactured intermediate goods	505	70	575
Capital goods	233	3	236
Other consumer goods	102	0	102
Imports			
Energy	743	0	743
Primary goods	417	49	466
Food	247	106	353
Manufactured intermediate goods	574	105	679
Capital goods	829	74	903
Other consumer goods	272	48	320

Source: World Bank, *Statistical Handbook 1994 – States of the Former USSR*, Washington DC, 1994.

Most of Tajikistan's trade in 1992 and 1993 was carried out under a single clearing agreement with the Russian Federation, although additional agreements of a similar nature were also arranged with Ukraine and Uzbekistan. Trade under these agreements was denominated in world prices, but was implemented through the state order system. Due to the critical lack of hard currency, however, the bulk of Tajikistan's trade with countries outside the former USSR has been conducted on a barter basis.

C. THE MACROECONOMIC POLICY ENVIRONMENT

Economic reforms

Tajikistan's agenda for transformation to a market economy was first established in the "Programme for Economic Stabilization and Transition to a Market Economy" approved by the Council of Ministers in December 1990. This was followed by the introduction of several specific laws and measures, the most important of which related to the denationalization and privatization of property, and to the liberalization of foreign economic activities in the country. A number of

banking and development institutions were also set up, most of which remain in an early stage of development.

In general, however, the reform process made very slow progress due to political instability, the civil war and the lack of qualified personnel to formulate and implement the reform measures. It was not until 1995, when a degree of political stability had been restored, that the government was again able to turn its attention to the task of economic stabilization and reform.

The need for a renewed concentration on economic matters was made more urgent by the emergence of a financial crisis in early 1995 caused by the failure of the Russian Federation to provide Tajikistan with a sufficient quantity of roubles, which had remained the country's legal tender. Faced with a severe shortage of cash, the government resolved to introduce its own currency, the Tajik rouble, and sought the assistance of the IMF for this undertaking. In return for this support the government introduced a package of IMF-recommended reforms, which were expected to result in the granting of a $22 million loan by the Fund.

Continued regional rivalries, an intensification of hostilities and political changes in early 1996 threatened to stall the reform process yet again, however. This has complicated the government's negotiations with the IMF, and held up the disbursement of the IMF loan, which was not finally approved until May 1996.

Fiscal policy

The government of Tajikistan has traditionally pursued a relatively expansionary fiscal policy, as a result of which the republic has consistently run large public-sector deficits. These amounted to an average of 17 per cent of NMP in 1985-90, and were financed by union transfers. Even after the cessation of such transfers in 1992, however, little adjustment was made to social expenditure. The bulk of the belt tightening that did take place took the form of cancellations of investment projects.

The single most important source of government revenue has been turnover tax, accounting for some 50 per cent of total revenues, with taxes on profit and personal income accounting for a further 25 per cent and 8 per cent of public revenue respectively in the second half of the 1980s. Recurrent expenditure averaged 85 per cent of total outlays, or 65 per cent of NMP, while subsidies and transfers accounted for 36 per cent of all expenditure during the same period. Since 1991 capital expenditure has been cut sharply, from 17 per cent of total expenditure to only 2.6 per cent, as social spending, in the form of subsidies and transfers, has been increased in response to rising prices.

Fiscal reforms were initiated in 1992, resulting in the introduction of a value added tax (VAT) and excise duties to replace the existing turnover and sales taxes. The revenue generated by this measure fell below expectations, however, and the combined effect of this revenue shortfall and the outbreak of the civil war in the second half of the year resulted in the budget deficit increasing to a level equivalent to 53 per cent of expenditure, or 37 per cent of GDP, from an estimated 6 per cent of expenditure in the previous year. The situation remained serious in 1993, with prices rising 20-fold and the budget deficit amounting to 25 per cent of GDP.

Some progress was achieved in 1994, when the budget deficit was reduced to 10 per cent of GDP, and although no firm data are available for 1995, preliminary government estimates suggest a further reduction to 7 per cent in 1995. Under pressure from the IMF, the government announced in December 1995 that it had drafted a budget aimed at reducing the deficit further to 6 per cent of GDP in 1996. Political developments since that time, and government pledges to raise public-

sector salaries and pensions have given rise to some doubt about the achievability of this goal, however.

Monetary policy

Tajikistan initially sought to remain in the rouble zone, and signed an agreement in principle on the establishment of a monetary union with the Russian Federation in September 1993. In line with this agreement Tajikistan ceased using the old pre-1993 roubles as legal tender except for small notes from January 1994 onwards, and negotiated a cash loan from the Russian Federation for Rb120 billion in new roubles. The delivery of the notes was delayed, however, and by June 1994 more than 50 per cent of the ordered notes had still not arrived in Tajikistan, putting severe pressure on the government and rendering it unable to pay its wages or its debts to its neighbours.

With the operational framework for the implementation of the monetary union agreement remaining unresolved well into the second half of 1994, the idea of issuing a transitional currency began to find favour among Tajikistan's monetary officials. By this time the enthusiasm of the Russian Federation for such a union had also begun to wane, and the Russian authorities began to encourage their counterparts in Tajikistan to issue such a currency. However, it was not until May 9, 1995, that the Tajik rouble was issued, and not until May 15 that it became sole legal tender at an exchange rate of TR1:Rb100.

Until the adoption of its own currency, the government of Tajikistan had no control over the country's money supply, which was determined by the monetary authorities of the Russian Federation, and little influence over the level of credit. Since the introduction of the Tajik rouble, however, the government has sought to curb monetary expansion by setting targets for the growth of the money supply and raising the benchmark interest rate to 250 per cent. This has been accompanied by a significant tightening of bank credits to the industrial and agricultural sectors.[24/]

Foreign exchange policy

The introduction of the Tajik rouble in May 1995 has imposed upon the monetary authorities the need to make conscious foreign exchange policy decisions, which they would have been spared if they had been able to enter into the proposed monetary union with the Russian Federation. This decision-making process is complicated by the fact that the new currency does not have international backing, and is receiving limited local market support. The delays in concluding a support agreement with the IMF have further eroded public confidence in the currency, causing its exchange rate to fall from TR140:$1 to TR300:$1 in September 1995. Faced with this rapid depreciation of the currency, the National Bank of Tajikistan suspended the currency auctions that had accompanied the introduction of the Tajik rouble. This, in turn, has placed further strains on the negotiations with the IMF, which is insisting on the establishment of a credible foreign exchange market before it is able to offer its support. In spite of this IMF pressure, no firm proposals for the restoration of the foreign exchange market had been announced by May 1996.

Trade policy

Maintaining Tajikistan's traditional trading links has been a primary concern of the country's government, particularly in the first years after the dissolution of the former USSR. Trade remains centralized, with the state-order system continuing to play a major role. For the most part, trade has not been diversified in terms either of markets or of goods. By 1993, however,

some shift in trading patterns began to occur with the increased sale of both cotton and aluminum in the international market.

The achievement of an increased degree of self-sufficiency in a broad range of essential products, including foods, fuels, and a number of other basic commodities, has become an important objective of the government. The setting of this policy goal has been prompted in part by the decision of the oil-exporting republics of the former USSR to sell their petroleum for hard currency at international prices after the dissolution of the union, which caused severe energy shortages in Tajikistan. The government hopes to reduce its dependency on oil imports mainly through the further development of local hydroelectric resources, but this is a long-term objective.

The importance of increased export diversification also became evident in 1992-93 when the world market price for both cotton and aluminum declined sharply. Such a diversification of exports is intended to be achieved through increased exploitation of the country's natural resources, involving in particular an increased production of gold and other minerals, and through the increased local processing of these materials. In order to diversify its suppliers and markets, moreover, Tajikistan has also entered into several trade agreements with countries from within and beyond the former USSR, and has joined several international trade organizations.

Box 3. Tajikistan: Major trade agreements

* GATT observer status (1993).
* EC Trade and Cooperation Agreement (December 1989) with USSR still in force.
* Other OECD countries have granted MFN and/or GSP status, some on an exceptional, temporary or *de facto* basis.
* Economic union with the CIS countries signed September 1993. Bilateral barter and inter-governmental agreements in place with CIS countries.
* Member of the Economic Cooperation Organization (ECO) formed by Turkey, the Islamic Republic of Iran and Pakistan.

As in several other republics of the former USSR, exports are subject to a licensing requirement, and export taxes. The magnitude of these controls varies from product to product, and is adjusted periodically. Two of the most heavily regulated export commodities are cotton and aluminium. Export licences are granted by the Cabinet of Ministers and, in the case of cotton, aluminium, minerals and carpets, the approval of the Ministry of Foreign Trade and Material Resources and the Ministry of Foreign Affairs is also required.

Human resource development

Substantial investment in the social sector during the Soviet period has resulted in the achievement of an almost universal literacy rate. Approximately 77 per cent of the population has ten or more

years of schooling.[25/] Following the adoption of Tajik (Persian) as the country's official language in 1989, the majority of pupils receive their education in Tajik. Even Russian language schools are required to teach Tajik from the first to the 11th grades, and greater emphasis also began to be placed on Tajik language and literature.

Following the Soviet model, Tajikistan's education system comprises primary schools (covering grades 1-5), secondary schools (grades 5-9 and 5-11), special secondary schools for technical education, and institutions of higher education. Education is compulsory for children aged 6-18, but a student may leave school at 16 to join the labour force.

Table 56. Tajikistan: Educational institutions, 1989/90 academic year

	Institutions	Students
Secondary schools	3,101	1,258,800
Specialized secondary schools	42	41,694
Higher schools (including university)	10	65,586

Source: Europa Publications Ltd, *The Europa World Yearbook 1993*, London, 1993.

Despite the adequate availability of basic education, Tajikistan suffers from a lack of vocational, technical and managerial training facilities. The facilities that do exist are managed through employment centres operated by the unemployment support system, and are available only to the unemployed. These institutes offer courses for up to six months, which until 1994 were designed to fulfil the requirements of the enterprise that had agreed to provide employment for the graduate. Since 1994 additional general courses have also been made available in the fields of accounting and construction.

Only 2,537 trainees were absorbed by the system between January and September 1993. To meet the needs of the economic reform and structural transformation process currently under way in Tajikistan, however, training efforts will need to be substantially expanded not only in terms of the numbers of people served, but also in the areas of training provided. The need for training will be particularly high in such new fields as market economics, customer service, quality control, cost accounting and financial management.

Environmental policies

Like the other republics of the former USSR, Tajikistan has inherited environmental legislation enacted under the centralized Soviet system, which established tight environmental controls and high standards for environmental protection. Most of these controls and standards have not been adequately implemented or monitored, however. The post-independence government of Tajikistan has not adopted or developed any new environmental policies to date.

D. POLICIES TOWARDS INDUSTRY

Privatization

The privatization programme is governed by the Law on Denationalization and Privatization of Property issued on February 21, 1991,[26/] which describes the purpose of privatization as being to create the property relationships necessary for a market economy, to overcome monopoly structures, to establish a competitive market environment, and to create the conditions for the establishment of a securities market and other institutions required for a market economy. In particular, the law states that preferential terms are to be given to privatization through labour collectives, and stipulates that all state-owned assets are eligible for privatization except those specifically prohibited by legislation, which include land and mineral resources, utilities, defence and communications industries, and healthcare. The law also stipulates the various eligible forms of privatization, which include leasing, leasing with an option to buy, auctioning, sale, gradual buyout, and transfer of property without compensation. Other provisions of the law state that bank credits should be made available for the purchase of privatized assets, and that proceeds from the privatization of state property are to be deposited in a special account, which will be subject to legislative decision and action.

The implementation of the privatization programme has been assigned to the Committee for State Property established in 1991, which has targeted the privatization of 840 industrial, commercial and service companies in several subsectors. Although ambitious annual targets were set by the committee for the privatization programme, and new measures to accelerate the implementation of the programme were introduced in November 1993, little has been achieved as other urgent economic priorities have diverted the government's attention. To the extent that any privatization has taken place it has involved the granting of leases, sometimes with future purchase options, to the employees of the enterprise concerned. In particular, there has been almost no interest from foreign investors in the privatization programme even though the privatization law encourages foreign participation.

Financial support for industrial development

The process of banking reform has not progressed very far. The government continues to exercise tight control over the operation of the banking system, and in particular over the allocation of credit. With the banking industry comprising only 13 banks, and many of the newly established commercial banks being owned by state enterprises, there is little competition and the level and quality of services are inadequate to support the development of a private sector or to serve a market-oriented economy.

The situation has been exacerbated by the exodus of trained Russian staff, which has affected the regulatory ability of the NBT as well as the ability of the commercial banks to manage their operations. A particular weakness pertains to the settlement of accounts, and it is widely believed that the financial position of most of the commercial banks is not good. While there are no adequate figures on bank solvency, the available information on lending practices indicates that the rolling over of bad and questionable debt to state enterprises has been widespread.

In 1994 the European Bank for Reconstruction and Development (EBRD) announced proposals to invest in several economic projects in Tajikistan, including exploration for major mineral deposits, hydroelectric power generation, food processing, and the development of small and medium-sized enterprises.[27/] Because these loans are on commercial terms, however, it is unlikely that they will be disbursed to any significant extent until the civil war has ended and a

stable political environment has been restored. The EBRD has also financed technical cooperation programmes to assist the government in drafting legislation for the banking, insurance and mining sectors, to establish a task force for privatization, and to improve the quality of credit appraisal and project evaluation by banks.[28/]

Promotion of foreign direct investment

The government has expressed an interest in attracting foreign investors, primarily to develop the mining sector through the exploration and development of new deposits of natural gas and other natural resources, and through the expansion of existing facilities. Foreign financial participation is also considered necessary for the development of the country's considerable hydroelectric potential, which will require substantial investments, and in a number of manufacturing industries, including agribusiness, food processing and packaging, textile production, and the production of mining equipment.

A new law on foreign investment was adopted in March 1992. It defines the basic legal conditions for foreign investment and provides for the protection of investors' rights and property on a non-discriminatory basis. Foreign investments are also encouraged by the Tajikistan Law on Foreign Economic Activity of June 1992, which establishes the framework for a broader participation by foreign companies and provides a framework for the import of foreign equipment and technology.[29/]

Although the new legislation permits foreign investors to form wholly-owned subsidiaries, the government encourages the formation of joint ventures with local partners in which the foreign share is restricted to a maximum of 49 per cent of the equity. Foreign companies are expected to provide their equity in the form of a cash contribution, while the share of the local partner is expected, in general, to be contributed through physical facilities. Joint ventures with a minimum foreign stake of 30 per cent are generally not required to obtain export licences, except for enterprises in the natural resource sector. Foreign investments are also protected from expropriation except in "emergency circumstances", when their owners are guaranteed a rapid and adequate compensation.

Enterprise restructuring

With little new capital investment or technological change, there has also been very little change in the scale of production of state-owned enterprises. Policy measures and institutional reforms introduced by the government since 1991 have had little effect in stimulating Tajikistan's transition to a market-oriented form of economic and industrial development. Largely due to the pressures generated by the civil war, little attention has been given to the restructuring of state-owned enterprises or industries on more competitive lines. These enterprises continue to operate much as before, albeit with a greater degree of uncertainty and dislocation.

II. THE MANUFACTURING SECTOR

A. GROWTH AND STRUCTURAL CHANGE

Growth

Prior to the consolidation of Soviet power in the central Asian region in the late 1920s, Tajikistan was a rural society with an economy based on traditional agricultural activities and livestock rearing. As in the other countries of the central Asian region, the industrialization process was begun in the 1930s, primarily through the immigration of Russian-speaking Slavs. By the 1970s, however, investment activity had begun to be diverted from the central Asian region to western Siberia, where interest was focused on the development of the region's oil resources. This inevitably resulted in a slowdown in economic and industrial growth in Tajikistan in the latter half of the 1970s and the 1980s.

Table 57. Tajikistan: Growth of fixed assets by subsector, 1980-90
(Percentage)

	1980-85	1985-90	1980-90
Fuel and energy	16	13	31
Processed foods	28	47	88
Light industry	43	52	118
Chemicals	199	11	233
Building materials	30	10	43
Metallurgy	59	33	112
Mechanical industry	-20	20	-4
Total	**35**	**22**	**65**

Source: World Bank, *Tajikistan: Country Economic Memorandum*, Washington DC, 12 August 1994.

Structural change

Throughout the Soviet period the geographical distribution of investment, industrialization and agricultural mechanization was focused disproportionately on the northern part of the republic, the traditional homeland of the then governing political elite. As in the other republics of the former USSR, and the central Asian republics in particular, the industrialization process was based primarily on the exploitation of local resources and the production of raw, semi-processed or

intermediate goods for the USSR market. Tajikistan, while less dependent on the union than some of the other republics, found itself in the position of possessing one of the world's largest aluminium smelters, at Regar, which relied on imports of alumina. Other manufacturing activities, the most important of which include metallurgy, machine building, light industry and food processing, play only a relatively minor role in comparison to the Regar plant.

Table 58. Tajikistan: Industrial structure, 1992

Subsector	Number of enterprises	Output (Million Rb)	Employment
Energy	6	234	3,049
Electricity	28	4,859	7,354
Processed foods	267	9,487	23,922
Light industry	130	27,692	69,872
Textiles	53	25,543	45,342
Wood and paper	189	767	5,598
Chemicals	13	3,392	10,955
Building materials	210	1,901	11,351
Metallurgy	10	19,301	13,872
Ferrous	1	30	118
Non-ferrous	9	19,271	13,754
Machine building	398	5,244	37,190
Other	314		
Total	**1,618**	**98,420**	**228,505**

Source: State Statistics Committee.

One positive feature of Tajikistan's industrial sector is the relatively young age of its stock of equipment. The average age of equipment in the country's enterprises was reported to be ten years in 1988, with more than 40 per cent being less than five years old.[30/] While this comparative modernity of the country's industrial equipment cannot ensure the efficiency of production, it may help to ease the transition to more efficient and competitive operating procedures.

Table 59. Tajikistan: Average age of industrial equipment, 1988

	Percentage of total
Under 5 years	41
5 to 10 years	31
10 to 20 years	21
Over 20 years	7

Source: State Statistics Committee.

B. INDUSTRIAL EMPLOYMENT

Quantitative trends

Prior to 1990 the industrial labour force grew at a fairly even, albeit modest, pace in absolute terms, even though its share of total employment began a slow decline in 1986. Since 1990, however, employment levels have dropped, with official statistics indicating a 2 per cent decline in industrial employment between 1990 and 1992, which is explained primarily in terms of the emigration of part of the Russian-speaking workforce.[31/] In view of the dislocations caused by the dissolution of the former USSR and the subsequent outbreak of civil war within Tajikistan, these official data may well understate the true increase in industrial unemployment. By the same token official employment data also do not adequately capture the number of people employed in the private sector.

Table 60. Tajikistan: Industrial employment as share of total employment, 1980-93, selected years[a/]
(Percentage)

1980	1985	1986	1987	1988	1989	1990	1991	1992	1993
14.3	14.3	14.4	14.2	13.8	13.6	13.5	13.0	13.1	13.5

Source: State Statistics Committee.

a/ Excluding construction.

With the industrial sector being dominated by Russian speakers, the number of ethnic Tajiks employed in the sector as a proportion of all working ethnic Tajiks is very low, at 10.9 per cent in 1992. Agriculture, on the other hand, accounts for 54.3 per cent of ethnic Tajik employment. By contrast, in that year some 29 per cent of working Russian speakers were employed in industry while only 2.8 per cent were in the agricultural sector.

Education and skills

The predominance of Russian speakers in industry, especially at the managerial and professional levels, has restrained the emergence of a large pool of ethnic Tajiks with the relevant skills. The large-scale emigration of Tajikistan's Russian-speaking population following the dissolution of the former USSR will consequently have a significantly adverse effect on the country's skill capacity, at least in the short term.

No major programme for the development of specialized education or technical skills has been introduced in Tajikistan in recent years. Most employees of state-owned enterprises receive on-the-job training, but few of these enterprises have the facilities or offer the incentives needed to upgrade the technical skills of their staff. The productivity of Tajikistan's industrial labour force has consequently remained unchanged for a considerable period of time.

Table 61. Tajikistan: Employment by sector, 1980-93, selected years
(Thousands)

							Annual growth rate	
	1980	1985	1990	1991	1992	1993	1980-90	1990-93
Agriculture and forestry	618	724	833	881	892	949	3.0	4.4
Industry	207	241	261	257	250	219	2.3	-5.7
Construction	104	118	161	148	132	116	4.5	-10.4
Other material sphere	170	197	208	205	177	168	2.1	-6.9
Health	66	79	104	106	110	103	4.7	-1.3
Education	128	150	189	197	200	188	4.0	-0.7
Other non-material sphere	149	173	182	177	147	111	1.2	-16.3
Other	514	592	680	683	634	570	2.8	-5.7
Total	**1,442**	**1,681**	**1,938**	**1,970**	**1,908**	**1,854**	**3.0**	**-1.5**

Source: State Statistics Committee.

The role of women

According to the 1989 census, the female labour force participation rate for all sectors of the economy in Tajikistan amounted to 30.1 per cent, well below the 41.9 per cent rate for men.[32/] Little information exists on the role of women in the workforce at sector and subsector level, although it would appear reasonable, based on the experience of neighbouring countries, to assume that women play only a modest role in industrial employment. Women are also likely to have suffered disproportionately from the decline in industrial employment recorded in the early 1990s.

C. PRODUCTIVITY AND PERFORMANCE

Enterprise profitability

The measurement of enterprise profitability in the republics of the former USSR is extremely difficult, if not impossible. The concept of profit centres was unknown in these countries until the first steps towards a transition to a market economy began to be taken in the early 1990s. Since the accounting systems in these countries were geared toward counting production rather than costs, the available financial data provide no indication of either product or enterprise profitability. The situation is further complicated by the fact that many enterprises provided a wide range of ancillary services not directly related to their core activity, and that many inputs such as energy were highly subsidized.

Labour productivity

Measurements of labour productivity in Soviet-style enterprises are also questionable, both because of the ancillary services they provide, such as day care centres, medical clinics and fire brigades, and because they tend to be highly integrated, often producing several completely unrelated

products. In general, however, it is commonly accepted that productivity in Soviet-style enterprises is well below that found in facilities producing similar goods in the West. Overstaffing is common, often by 100 per cent or more, and plant layout and production methods generally involve far more material handling.

The available data suggest that labour productivity in Tajikistan is low relative to the other republics of the former USSR, and the lowest among the states of the central Asian region. In 1985 the country's labour productivity, measured as the NMP per head produced by persons employed in the material sector, amounted to only 60 per cent of the average for the former USSR as a whole. By 1989 that figure had dropped further to just 46 per cent.

D. OWNERSHIP AND INVESTMENT PATTERNS

Ownership

Private ownership has been extremely limited in Tajikistan outside the agricultural sector. Privatization, while an official priority of the government, has been hampered, along with other reform efforts, by the civil war and the frequent emergence of other pressing political issues. In August 1994 the World Bank reported that only about 12 per cent of small enterprises and the same proportion of medium-sized and large enterprises had been privatized by October 1993. The privatized enterprises came from several sectors, including manufacturing, construction, transport, trade and agriculture. Official government data cited in the World Bank study indicated the existence of more than 3,000 "entrepreneurial" structures in mid-1993. These included 643 cooperatives, 1,749 small state enterprises, 182 joint ventures (of which only 45 were thought to be active) and 556 private enterprises.[33/] In October 1994 the EBRD estimated that the private sector in Tajikistan, including the informal sector, may have accounted for 10-20 per cent of GDP.

Table 62. Tajikistan: Medium-sized and large enterprises privatized as of October 1993

	Private employee			Joint stock bought		
Sector	Company	Collective	Leased	Company[a/]	Real estate	Total
Agriculture		15		1		16
Industry		11	3	13		27
Mining and metallurgy		5		1	1	7
Construction and materials	2	16	5	11		34
Retail trade	3	15	2	3	1	24
Catering	1	3				4
Transportation		3	3	2		8
Services	1	14	5	7	2	29
Other		1	1		1	3
Total[b/]	**7**	**83**	**19**	**38**	**5**	**152**

Source: World Bank, *Tajikistan: Country Economic Memorandum*, Washington DC, 12 August 1994.

a/ List of joint-stock companies where 40 per cent of shares were sold to labour collectives.
b/ Incorporates corrections to errors in original source.

Investment

There has been very limited foreign investment in, or transfer of technology to, Tajikistan, especially outside the mining and mineral processing industries. In November 1993, however, a joint-venture agreement was entered into between the government and a Turkish company, Yazex, to build three cotton mills in the Khatlon region, which produces about half of the country's cotton.

Foreign investor interest in Tajikistan's mineral resources has yet to be translated into much real investment. In 1994 the UK firm British & Commonwealth Minerals did enter into a joint-venture agreement with the government of Tajikistan to explore and develop the gold mining potential of the Zaravshon valley. Although the government has retained a 51 per cent share in the venture's equity, the firm, which has since been renamed Nelson Gold, has been granted a number of tax concessions and invested $25 million in the undertaking. In April 1996 it announced plans to extend its operations with a further investment of $110 million.

In June 1995 it was announced that a Canadian mining company, Gulf International Minerals, was entering into a joint venture to manage and develop gold and silver deposits at Aprelevka and four sites in the Karamazar region in northern Tajikistan. The combined value of these reserves is thought to be about $1.2 billion, and Gulf will invest some $2.2 million.

E. INDUSTRIAL LOCATION

With political power traditionally having been concentrated in the hands of politicians from the Leninabad/Khojand region in the north of the country, most of the state investment undertaken during the Soviet period was channelled into this region, which has consequently emerged as Tajikistan's principal industrial centre The existence of this industrial infrastructure has also prompted most of the private investment undertaken since 1991 to be concentrated in this region.

F. ENVIRONMENTAL ISSUES

Tajikistan is less heavily industrialized and less intensively irrigated than most of the other Central Asian republics of the former USSR. The country therefore continues to be endowed with a relatively clean environment and a rich biodiversity. At the same time, however, it has not completely escaped the environmental degradation so common in the former USSR, and without attention to the current problems and future threats posed by the continued use of ecologically unsound practices it could lose these important assets.

The range of environmental problems that have begun to emerge is highly diverse. The inappropriate use of chemical fertilizers and pesticides has resulted in water and soil contamination in some areas, while deforestation and overgrazing have led to erosion and salinization in others. The development of hydroelectric power has also had a mixed impact; while saving the country from the ill effects of hydrocarbon usage, it has reduced biodiversity.

Tajikistan's most important environmental problems are associated with its industrial development and, in particular, with the Regar aluminium smelter and the country's chemicals industry. The effects of the air pollution associated with the Regar smelter are visible and frightening. The

livestock population in the surrounding areas is diseased, while the impact on the human population is illustrated most visibly in the widespread discoloration of the teeth of local children.

The chemicals industry is the primary, although not the sole, source of water pollution in the republic. Both the Yavan chemical plant and Leninabad chemical plant dump large quantities of toxic waste. The former has dumped so much waste into the surface water that the nearby Narym-Sy river is neither potable nor usable for irrigation. The Leninabad plant was a processor of uranium and now refines gold, silver and other rare metals, and has also caused a great deal of damage to the soil and water resources near the site.

Water contamination has also occurred in populated areas from the inadequate handling of waste. There is a shortage of drinking water in several areas of the country, and dysentery is the most common cause of infant death, accounting for 30 per cent of the deaths of children under the age of five.[34/]

G. TRADE IN MANUFACTURES

Imports

Tajikistan imports the vast majority of its manufactured goods, from chemicals to processed foods These manufactured imports, which have traditionally been obtained from the other republics of the former USSR, also account for the bulk of the country's total imports. The latest available data thus indicate that industrial imports accounted for more than 70 per cent of Tajikistan's inter-republic imports in 1992. Manufactured imports also accounted for almost 80 per cent of total extra-republic imports in 1991, although a sharp rise in agricultural imports caused this proportion to fall to only 3.6 per cent in 1992.

Table 63. Tajikistan: Industrial imports by commodity group, 1990-92
(Rb million)

	Inter-republic			Extra-republic		
	1990	1991	1992	1990	1991	1992
Processed foods	424	707	1,455	151	272	95
Light industry	558	574	2,777	298	198	124
Sawmill and lumber industry	124	197	820	13	-	11
Chemicals and petroleum	322	258	4,761	57	1	10
Building materials	54	81	470	5	1	1
Ferrous metallurgy	110	191	2,952	7	3	-
Non-ferrous metallurgy	193	79	524	39	-	-
Machinery and metal works	796	475	2,926	113	2	13
Other	105	1	58	4	-	3
Total industrial imports	2,686	2,563	16,743	687	477	257
Total imports	**3,359**	**3,067**	**23,839**	**768**	**601**	**7,047**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Exports

Manufactured goods also constitute the bulk of Tajikistan's exports, consistently accounting for more than 90 per cent of the country's inter-republic exports and almost all of its extra-republic exports in 1990-92. The most important of these exports are non-ferrous metals, machinery and light industrial goods. The non-ferrous metals consist primarily of aluminium, the machinery mainly of refrigerators and freezers, and the light industrial goods of textiles and garments.

Table 64. Tajikistan: Industrial exports by commodity group, 1990-92
(Rb million)

	Inter-republic			Extra-republic		
	1990	1991	1992	1990	1991	1992
Processed foods	405	491	1,091	5	-	-
Light industry	1,061	954	4,233	126	2	76
Sawmill and lumber industry	3	12	100	-	-	-
Chemicals and petroleum	119	72	787	2	2	-
Building materials	29	181	225	-	-	30
Ferrous metallurgy	4	11	120	-	-	-
Non-ferrous metallurgy	298	955	4,782	168	488	20,107
Machinery and metal works	228	486	4,661	3	-	-
Other	4	-	11	-	-	-
Total industrial exports	2,151	3,162	16,010	304	492	20,213
Total exports	**2,378**	**3,201**	**16,433**	**308**	**500**	**20,213**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

H. INTERNATIONAL COOPERATION FOR INDUSTRIAL DEVELOPMENT

The civil war in Tajikistan has taken its toll in many ways. One has been the inability and reluctance of many multilateral and bilateral donors to extend technical assistance to the republic. As of mid-1994, the OECD Register reported only 29 completed projects in Tajikistan with an estimated value of $286,000.[35] All of these projects were regional. The register had only received reports of 14 requests for technical assistance in 1994, and only 12 in 1993.

Most of the offers for technical assistance received by Tajikistan have been in the areas of institution building and democratization ($4.1 million), the financial sector ($3.2 million), energy and nuclear safety ($2.4 million) and economic cooperation ($1.8 million). The principal donors of such assistance are the EU ($7 million), the USA ($4.3 million), Germany ($2.2 million) and Turkey ($1.6 million).

UNIDO has received two requests from Tajikistan for technical assistance, in the field of medicinal plants and for improvements to the aluminium smelter at Regar. Both projects are in

the early of stages of development. It is likely that with the end of the civil war the focus of the government will turn more fully to the restructuring and rehabilitation of the economy, and especially to repairing the damage to industry caused by the war. Against this background, UNIDO is likely to receive increased requests for technical assistance from Tajikistan in the future.

Table 65. Tajikistan: Technical assistance, 1993 and 1994

	Completed		Under way		On offer	
	1993	1994	1993	1994	1993	1994
Number of projects	16	29	69	78	7	24
Value ($ million)	0.3	0.2	6.1	9.2	1.4	8.8

Source: OECD Register.

III. INDUSTRIAL BRANCH PROFILES

A. FOOD PROCESSING AND RELATED AGRO-INDUSTRIES

The resource base

Tajikistan has a strong agricultural base despite the fact that the total arable land area amounts to only 800,000 hectares. As part of the former USSR, Tajikistan was known for its fruits, vegetables, grapes and wine. Together with tobacco, these are some of the few items of which the republic has traditionally been a net exporter, other than cotton and aluminium.

In 1990 Tajikistan had 2.4 million head of sheep and goats, and 1.4 million head of cattle, 505,000 of which were dairy cows. There were also 205,000 pigs and 42,000 horses. The economic dislocations of recent years have resulted in a marked decline in the country's livestock population. Poultry numbers decreased from almost 6 million in 1991 to 2.7 million in 1992 and just 2.1 million in 1993 due to a lack of feed and vaccines.

Table 66. Tajikistan: Number of livestock, 1985-94, selected years
(Thousands)

	1985	1990	1991	1992	1993	1994
Cattle	1,351	1,352	1,391	1,246	1,250	1,168
Pigs	205	183	128	56	47	33
Sheep and goats	2,437	2,462	2,484	2,237	2,081	1,893
Horses	42	52	53	49	55	55

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Past trends

As a result of the combined effects of the dissolution of the former USSR, the civil war, and serious flooding in both 1992 and 1993, agricultural production has dropped significantly in recent years. This has resulted in a corresponding decline in the output of the food processing industry. At the same time, however, substantial price increases have led to nominal increases in the gross value of output.

Table 67. Tajikistan: Agricultural production, 1980-94, selected years
(Thousand tonnes)

	1980	1985	1987	1990	1991	1992	1993	1994
Wheat	238	323	347	313	286	257	253	212
Coarse grain	104	143	138	133	109	78	67	..
Rice	28	37	28	29	26	20	21	22
Tobacco	13	..	11	10	11	10	12	..
Potatoes	153	185	192	207	181	167	147	134
Pulses	6	6	6	8	9	3	5	..
Vegetables	381	473	517	528	628	543	485	495
Fruit	213	245	219	220	177	183	149	145
Grapes	159	171	132	190	121	100	87	80
Corn	916	1,338	1,293	1,222	1,150	727	599	..

Source: State Statistics Committee.

While investment dropped throughout the economy in 1993 and 1994, substantial financial resources continued to be allocated to agriculture and food processing. For example, Rb30 billion was allocated to the agricultural sector in February 1993 to repair war damage, and in February 1994 a new programme was initiated in which cooperatives began to invest in expanding their own food processing and consumer goods production capacity. The government allocated Rb17 billion of credits with a 10 per cent interest rate for these projects.

As a result of these developments, the food industry consisted of 267 enterprises in 1994. The industry was subdivided into three groups: food and confectionery; meat and milk; and bread products. The largest group is the Food and Confectionery Association, which produces canned goods, oils and margarine, wines and other alcoholic beverages, tobacco products, salt and biscuits.

Table 68. Tajikistan: Agro-industrial production, 1987-94, selected years
(Rb million, constant January 1994 prices)

	1987	1990	1991	1992	1993	1994
Processed foods	220,746	238,545	229,957	160,280	143,771	102,365
Meat and dairy products	211,091	247,831	158,612	86,285	53,324	35,034
Fish	2,122	2,716	2,854	1,855	2,375	1,449
Total, including others	**368,281**	**408,751**	**347,030**	**292,510**	**199,494**	**138,848**

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Constraints and prospects

Although Tajikistan's soil and climate are well suited to the production of fruits and vegetables, the republic is isolated from major markets and must therefore concentrate on high-value products to make up for high transport costs. Quality must also be improved to enable the country's produce to compete with imports and to break into new markets. In addition, the handling of produce must be upgraded to cut down on losses during harvesting and shipping.

The republic's wine business has suffered from the same constraint faced by other republics of the former USSR: the shortage of bottles. In order to expand its markets at the highest value, this shortage will have to be overcome. The country currently ships wine in bulk to its main export markets in the former USSR.

Other packaging materials have also been in short supply and have constrained the country's ability to meet its export commitments. Some facilities to produce packaging locally have been built, but they have themselves often faced supply shortages.

B. TEXTILES AND CLOTHING

The resource base

Cotton is Tajikistan's most important cash crop, accounting for 42 per cent of the country's irrigated land area and 35 per cent of its total cropped area, and representing approximately half of the value of its total crop production. Cotton production has, however, been severely affected by the civil war and the floods of 1992 and 1993, as a result of which production fell by 38 per cent between 1991 and 1992 and showed little improvement in 1993 and 1994.

In an attempt to boost production in 1995/96, the government launched an ambitious planting programme in early 1995, involving both an increase in the total planted area and a substantial shift to the planting of long staple varieties. This was intended to result in an increase in output to 750,000 tonnes in 1995 from 529,000 tonnes in the previous year, but it appears unlikely that this target has been achieved. The latest available estimates suggest that output in fact fell to 416,000 tonnes.[36/]

Table 69. Tajikistan: Production of cotton, 1980-94, selected years
(Thousand tonnes)

	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Raw cotton	1,011	935	992	872	964	921	842	826	515	524	529
Cotton fibre	321	291	293	276	294	250	256	255	165	180	..

Source: State Statistics Committee.

Apart from cotton, wool and silk also provide important raw materials for Tajikistan's textile industry. Since almost half of the country's sheep and most goats are privately owned, the availability of data on the volume of wool production is very limited. Data on the value of production, in constant 1993 prices, indicate a steady decline from a peak of Rb26 million in 1989 to Rb20 million in 1991. Silk cocoons, meanwhile, are widely cultivated as an important component of private farm income.

Past trends

While the production of cotton and wool has fallen since 1991, this has resulted in a reduction in exports rather than in a shortfall of raw material supplies for local textile production, which has remained fairly steady when measured in constant roubles. Although investment has been sharply curtailed in all sectors, some efforts to rehabilitate and expand production of silk and cotton textiles have been undertaken. In 1992 there were 53 enterprises producing textiles in Tajikistan.

Table 70. Tajikistan: Production of textiles and clothing, 1985-94, selected years
(Rb million, constant January 1994 prices)

	1985	1990	1991	1992	1993	1994
Textiles	551,114	579,762	573,964	517,142	590,576	379,150
Clothing	38,430	41,972	47,176	33,542	37,534	21,845

Source: State Statistics Committee.

Constraints and prospects

Tajikistan's strong resource base in cotton, wool and silk renders the outlook for the development of the textile sector brighter than that of most other industrial branches. Foreign investment interest in textile production elsewhere in central Asia, combined with the relatively low cost of entry into the industry, suggest that this interest might extend to Tajikistan as well if the political problems the republic is facing can be settled.

C. LEATHER AND FOOTWEAR

The resource base

The principal resource base of this branch of the manufacturing sector is Tajikistan's large animal husbandry industry. This is mainly in the hands of pastoralists in the private sector, who rear large herds and flocks of cattle, sheep and goats.

Past trends

Tajikistan has several enterprises involved in the production of leather goods and footwear. The industry had a capacity of approximately 9 million pairs of shoes in the early 1990s, although its

output measured in constant roubles had dropped to approximately one-third of its 1990 level by 1993. The footwear industry was high on the government's list for privatization, and the comparatively large No. 1 Footwear Factory in Dushanbe was one of the first state-owned enterprises to be privatized in 1992. By allowing it to bypass the cumbersome state distribution system, the privatization of this plant was expected to enable it to market its entire capacity of 3 million pairs per year.

Table 71. Tajikistan: Production of leather goods and footwear, 1985-94, selected years
(Rb million, constant January 1994 prices)

1985	1990	1991	1992	1993	1994
53,225	62,141	59,966	39,098	27,212	6,150

Source: State Statistics Committee.

Constraints and prospects

The existence of a strong domestic raw material base provides the leather and footwear industry with a relatively bright outlook. Its prospects are improved further by its comparatively low entry cost, which will facilitate the emergence of small-scale enterprises, and by potentially strong foreign investment interest, which was indicated by the establishment of a leather processing and apparel making facility by a US-Tajik joint venture prior to the outbreak of the civil war.[37/] Attracting increased foreign investment in the industry, and stimulating increased foreign interest in the purchase of hides from Tajikistan will, however, depend crucially on a resolution of the country's political difficulties. Until this is achieved few foreign businessmen will visit the country, let alone invest in it.

D. CHEMICALS AND PETROCHEMICALS

The resource base

In the absence of any known reserves of petroleum or natural gas, Tajikistan's petrochemical industry has developed on the basis of imported raw materials. The country does possess a number of other mineral and botanical raw materials, which have permitted the development of a relatively diverse chemical industry.

Past trends

The chemical industry attracted substantial public investment during the 1980s, resulting in a 233 per cent increase in its gross fixed assets.[38/] This high level of investment resulted in a significant growth of the industry, which comprised 13 enterprises with a total workforce of 10,995 employees and an output of Rb3,392 million in 1992, consisting mainly of basic chemicals, rubber and asbestos. Because of its comparatively recent development, the industry also has relatively

modern equipment embodying fairly up-to-date technologies. The industry has suffered severe disruption in recent years due to the dissolution of the former USSR, the associated unravelling of Tajikistan's traditional trading links, and the civil war, which resulted in a sharp drop in output in 1991-94.

Table 72. Tajikistan: Output of the chemical and petrochemical industries, 1985-94, selected years
(Rb million, constant January 1994 prices)

1985	1990	1991	1992	1993	1994
179,763	266,038	272,423	125,042	72,024	48,976

Source: State Statistics Committee.

Constraints and prospects

Despite its recent decline in output, the chemicals industry faces a broadly favourable outlook, primarily because its relatively modern plant and equipment will give it the flexibility it needs to adjust to changing conditions. The industry has also begun to attract some foreign interest, with the People's Republic of China having expressed interest in producing antimony oxide[39/] and the government of India having extended a credit for the purchase of medicinal chemicals. At the same time, however, the chemicals industry faces a number of serious environmental problems, and the costs for cleaning up the existing damage and upgrading the industry's technology to prevent future damage will be high. Foreign investors in particular are concerned about these issues and the question of future liability. Until environmental regulations are in place and the question of liability is clearly addressed, the sector will see little if any private foreign investment.

E. FERROUS AND NON-FERROUS METALLURGY

The resource base

Tajikistan has several important deposits of gold, silver, mercury, zinc and other metals, only a relatively small proportion of which are currently being worked. This provides the country with an important resource base for the further development of the industry, even though its existing mines are partially depleted.

Past trends

The metallurgical industry consists of nine enterprises engaged in non-ferrous metallurgy with a total workforce of almost 14,000 in 1992. The most important of these is the Regar aluminium smelter near Dushanbe, which is one of the largest in the world with an annual capacity of 514,000 tons, employing more than 12,000 people. Other significant plants include a large hydro-metallurgical operation at Isphara in the north of the country, which formerly produced strontium,

barium and other rare metals, and a ferro-vanadium combine with an annual capacity of 1,500 tonnes.

Table 73. Tajikistan: Output of the ferrous and non-ferrous metallurgical industry, 1985-94, selected years
(Rb million, constant January 1994 prices)

1985	1990	1991	1992	1993	1994
510,633	755,538	634,652	512,164	377,465	349,155

Source: State Statistics Committee.

The disruption of trade and the civil war have both taken their toll on the metallurgical industry. The Regar aluminium smelter relies on imports of raw materials, which have been disrupted, and the facility has had to be closely guarded to protect it from attack. Despite these unfavourable conditions the country has been able to attract considerable foreign interest in the development of its rare metals resources, and several joint ventures have already been established with foreign participants. The Canadian firm Gulf International Minerals entered into several agreements in 1994 and 1995 involving the development of Tajikistan's gold and silver resources. The UK firm Nelson Gold has also entered into a joint venture involving an initial investment of $25 million to mine gold from the western region deposits at Tajor and Jelal, while another UK firm, the Donovan Group, has entered into a similar agreement for the development of the Burgunda mine near the city of Khojand.

Constraints and prospects

The development of the metallurgical sector in Tajikistan is constrained by a number of factors, including the remoteness of many of its raw material deposits and a shortage of domestic financial resources. In the absence of local capital, the development of the industry will have to rely heavily on foreign investment, which will only be forthcoming on the required scale if the business environment becomes more favourable through a liberalization of the regulatory framework and a restoration of political stability. In addition, potential investors will need much more detailed information on the country's mineral deposits than is currently available.

The outlook for the Regar aluminium plant is not very promising. Like most similar enterprises in the former USSR this facility consumes large amounts of energy, equivalent to about 40 per cent of Tajikistan's electrical output, and also creates massive pollution. A survey published by the World Bank in 1994 questions the plant's ability to operate profitably in a competitive environment, noting that the quality of its output is poor because of the inadequacy of the existing technology and equipment, and that it has therefore been selling on world markets only at a deep discount.

Even if the smelter can be rehabilitated at high cost, it is unclear whether it can be made competitive. In addition, the serious environmental problems posed by the plant will have to be addressed. If a foreign investor cannot be found to carry out and finance the restructuring, the

World Bank has recommended that the smelter be shut down, freeing up energy for export and reducing imports of raw materials.[40/]

F. MACHINERY AND METALWORKING

The resource base

The machinery and metalworking industry in Tajikistan does not have a specific natural resource base. It was established primarily as a consequence of the policy of inter-regional specialization pursued by the former USSR, which paid comparatively little attention to the economic viability of the individual enterprises established under the system. In spite of the increasing educational standards established in Tajikistan since the 1920s and 1930s, moreover, the operation of these enterprises depended heavily on immigrants from the Russian Federation and Ukraine.

Past trends

The machinery and metalworking industry, including the production of electrotechnical equipment, is composed of 398 enterprises. It is centred on the production of industrial appliances; automotive, aviation, and oil and gas equipment; textile and agricultural machinery; and jewellery. The electrotechnical group of enterprises produces a variety of electrical and electronic equipment including transformers, cables, light bulbs and several different electronic components. Many of the latter were used in the Soviet space programme.

The output of the machine-building industry declined sharply in 1991 after five years of relatively stable output. By 1994 the level of output had dropped to just 31 per cent of the 1991 level, and was well below that of 1985.

Table 74. Tajikistan: Output of the machinery and metalworking industry, 1985-94, selected years
(Rb million, constant January 1994 prices)

1985	1990	1991	1992	1993	1994
138,349	180,874	179,534	117,056	91,304	56,152

Source: State Statistics Committee.

Constraints and prospects

A major constraint facing the machinery and metalworking industry is the lack of investment it has experienced in the previous decade. The resulting age and poor condition of the physical plant and equipment, and the obsolescent technology it embodies, will make it more costly and difficult to modernize the industry and to stimulate its adjustment to new competitive conditions.

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30/ World Bank, *Tajikistan: Country Economic Memorandum,* Washington DC, 12 August 1994.

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ANNEX A

STATISTICAL TABLES

Annex Table A-1. Kazakstan: National accounts, 1985-93, selected years
(Rb billion)

	1985	1987	1988	1989	1990	1991	1992	1993[a/]
Current prices								
Gross social product	60.28	65.18	68.36	71.08	76.68	154.61	2,311.67	43.96
Material inputs	37.13	40.93	41.64	43.08	43.32	87.78	1,471.24	22.61
Net material product	23.15	24.20	26.72	28.00	33.36	66.83	840.42	21.35
By industrial origin:								
Agriculture	6.82	8.07	9.22	10.46	13.96	22.86	255.74	4.30
Industry	7.63	6.92	6.76	5.66	7.00	24.76	390.25	9.25
Construction	3.73	4.35	4.84	5.62	5.34	9.02	64.82	2.57
Transport and communications	2.32	2.44	2.61	2.63	3.26	5.67	67.17	2.37
Others	2.67	2.44	3.30	3.62	3.80	4.52	62.44	2.86
By expenditure:								
Consumption	21.55	22.48	23.88	25.83	28.45	63.10	667.79	15.32
Investment (accumulation)	9.92	8.31	8.47	8.73	11.69	22.48	324.97	8.42
Losses	0.51	0.58	0.72	0.79	0.97	0.66	9.01	..
Net exports	-8.82	-7.17	-6.34	-7.36	-7.76	-19.41	-161.35	..
Constant prices[b/]								
Net material product	22.60	22.94	24.90	26.70	27.74	28.40	57.51	..
By industrial origin:								
Agriculture	6.47	7.09	7.70	8.21	11.74	11.51	22.97	..
Industry	7.35	6.72	6.76	6.86	4.48	6.71	20.80	..
Construction	3.79	4.24	4.85	5.12	5.16	4.00	5.14	..
Transport and communications	2.32	2.44	2.61	2.60	2.75	4.56	4.78	..
Others	2.67	2.46	2.99	3.91	3.60	2.62	3.83	..
By expenditure:								
Consumption	21.50	22.15	23.40	24.57	26.19	31.30	61.90	..
Investment (accumulation)	9.04	7.89	8.35	7.86	9.58	8.43	8.84	..
Losses and discrepancy	..	..	..	..	..	..	..	..
Net exports	-7.93	-7.10	-6.95	-5.74	-8.04	-11.33	-13.23	..

Source: State Statistics Committee.

a/ Billion tenge.
b/ In 1983 prices for 1985-88; in previous years' prices for 1989-92.

Annex Table A-2. Kazakstan: General government budget, 1985-94, selected years
(Rb billion)

	1985	1986	1987	1988	1989	1990	1991	1992	1993[a/]	1994[a/]
Revenue										
Total revenue	11.83	11.97	12.78	14.20	15.96	18.35	26.07	298.00	7.96	104.10
Of which:										
Grants (net)	1.35	1.87	2.48	3.73	4.60	6.05	6.03	21.00	0.41	1.51
Current revenue	10.48	10.09	10.30	10.37	11.36	12.30	20.04	276.40	7.55	102.59
Tax revenue	10.16	9.75	9.98	10.11	11.07	11.85	17.65	261.00	4.86	44.81
Taxes income and profit	4.32	4.35	4.12	4.12	4.39	4.24	9.87	92.00	1.25	14.71
Personal	1.57	1.65	1.72	1.89	2.17	1.37	3.09	30.00	-	0.11
Corporate	2.75	2.70	2.39	2.23	2.22	2.87	6.78	62.00	1,25	14,61
Social security contributions	1.14	1.26	1.35	1.47	1.57	1.81	-	-	-	-
Taxes on goods and services	4.16	3.85	4.11	4.14	4.44	4.93	5.90	72.00	1.32	12.98
Taxes on international trade	-	-	-	-	-	-	-	28.00	0.14	8.58
Other taxes	0.53	0.29	0.41	0.38	0.67	0.88	1.89	69.00	1.37	0.11
Non-tax revenue	0.32	0.34	0.32	0.25	0.29	0.45	2.39	15.40	2.70	57.78
Capital revenue	-	-	-	-	-	-	-	0.60	-	-
Expenditure										
Total expenditure	11.51	11.77	12.50	13.50	15.38	17.06	32.76	387.00	7.08	..
Current expenditure	..	..	..	..	..	..	..	306.00	..	..
Goods and services	..	..	..	..	..	..	..	212.00	..	..
Interest payments	..	..	..	..	..	..	..	33.00	..	..
Transfers	..	..	..	..	..	..	..	61.00	..	..
Capital expenditure	..	..	..	..	..	..	..	81.00	..	..
Surplus/deficit	0.31	0.19	0.29	0.60	0.59	1.30	-6.69	-89.00	0.89	..
Financing	..	..	..	..	..	..	..	89.00	..	..
Foreign (net)	..	..	..	..	..	..	..	71.00	..	..
Domestic (net)	..	..	..	..	..	..	..	18.01	..	..

Source: Ministry of Finance.

a/ Billion tenge.

Annex Table A-3. Kazakstan: Summary of external trade, 1989-94
(Rb million)

	1989	1990	1991	1992[a/]	1993[b/]	1994[b/]
Total trade						
Exports	9,097	9,350	15,365	..	..	..
Imports	17,571	17,834	14,239	..	..	..
Balance	-8,474	-8.484	1,126	..	..	..
Of which:						
Inter-republic trade						
Exports	8,204	8,443	15,785	353,203	4,716	61,491
Imports	14,573	14,317	21,074	393,428	5,197	30,337
Balance	-6,369	-5,874	-5,289	-40,225	-481	31,154
Extra-republic trade						
Exports	893	907	1,620	1,451	1,485	1,095
Imports	2,998	3,517	1,019	565	472	514
Balance	-2,105	-2,610	601	886	1,013	581

Source: State Statistics Committee.

a/ Extra-republic trade in million dollars.
b/ Inter-republic trade in million tenge; extra-republic trade in million dollars.

Annex Table A-4. Kazakstan: Exports by commodity groups, 1989 and 1990
(Rb million)

	Inter-republic		Extra-republic		Total exports	
	1989	1990	1989	1990	1989	1990
Agriculture	1,123	1,732	23	32	1,146	1,764
Industry	6,864	6,513	869	875	7,733	7,388
Power	224	233	-	-	224	233
Oil and gas	860	783	15	12	875	795
Coal	312	304	-	2	312	306
Processed foods	582	561	35	51	617	612
Light industry	1,495	1,395	130	141	1,625	1,536
Sawmill and lumber industry	26	22	..	1	26	23
Chemicals and petroleum	968	961	153	121	1,121	1,082
Building materials	144	114	2	2	146	116
Ferrous metallurgy	889	839	188	198	1,077	1,037
Non-ferrous metallurgy	492	480	290	297	791	777
Machinery and metalworks	790	746	47	41	837	787
Other industries	82	75	..	9	82	84
Other material production	217	198	1	-	218	198
Total	**8,204**	**8,443**	**893**	**907**	**9,097**	**9,350**

Source: State Statistics Committee.

Annex Table A-5. Kazakstan: Imports by commodity groups, 1989 and 1990
(Rb million)

	Inter-republic		Extra-republic		Total imports	
	1989	1990	1989	1990	1989	1990
Agriculture	194	227	264	165	458	392
Industry	14,217	13,775	2,734	3,352	16,951	17,127
Power	371	420	-	-	371	420
Oil and gas	1,433	1,177	4	5	1,447	1,182
Coal	155	156	..	..	155	156
Processed foods	1,347	1,232	525	647	1,872	1,879
Light industry	1,849	1,982	1,264	1,392	3,113	3,374
Sawmill and lumber industry	905	691	83	142	988	833
Chemicals and petroleum	1,577	1,522	126	205	1,703	1,727
Building materials	285	296	28	36	313	332
Ferrous metallurgy	977	939	63	47	1,040	986
Non-ferrous metallurgy	252	255	20	20	272	275
Machinery and metalworks	4,754	4,704	605	806	5,359	5,510
Other industries	301	400	16	52	317	452
Other material production	162	315	..	..	162	315
Total	**14,573**	**14,317**	**2,998**	**3,517**	**17,571**	**17,834**

Source: State Statistics Committee.

Annex Table A-6. Kazakstan: Industrial production by subsector, 1985-93, selected years
(Rb million, constant prices)

	1985	1990	1991	1992	1993
Processed foods	4,462	5,555	5,205	3,786	2,747
Food processing	1,931	2,135	1,986	1,636	1,176
Meat and dairy products	2,349	3,233	3,013	1,986	1,503
Fish	182	187	206	164	68
Light industry	4,405	5,145	5,375	4,211	1,319
Textiles	2,756	3,295	3,255	2,556	838
Clothing	1,376	1,532	1,769	1,380	273
Leather	273	318	351	275	208
Heavy industry	17,428	19,677	20,809	18,121	15,965
Energy	4,959	5,444	7,431	6,987	5,554
Electricity	1,655	1,868	1,851	1,736	1,902
Fuels	3,295	3,576	5,580	5,251	3,652
Wood products	815	960	797	563	530
Chemicals	1,732	2,258	1,565	1,144	925
Building materials	1,754	1,980	2,000	1,662	1,193
Metallurgy	5,022	5,463	5,394	5,038	5,491
Machine building	3,155	3,572	3,622	2,727	2,272
Other	3,799	4,665	3,338	3,816	1,694
Total	**30,094**	**35,042**	**34,727**	**29,934**	**21,725**

Source: State Statistics Committee.

Annex Table A-7. Kyrgyz Republic: National accounts, 1985-93, selected years
(Rb billion)

	1985	1987	1988	1989	1990	1991	1992	1993
Current prices								
Gross social product	11.04	11.49	12.12	12.95	13.42	28.72	229.22	..
Material inputs	6.60	6.98	7.17	7.40	7.39	14.95	94.09	..
Net material product	4.44	4.51	4.95	5.55	6.03	14.22	135.13	921.99
By industrial origin:								
Agriculture	1.65	1.81	1.97	3.32	2.61	6.77	58.17	375.36
Industry	1.61	1.57	1.71	1.85	1.92	4.27	51.80	359.57
Construction	0.57	0.59	0.65	0.67	0.72	1.07	8.08	37.86
Transport and communications	0.16	0.17	0.17	0.19	0.20	0.31	2.61	21.23
Others	0.45	0.46	0.37	0.44	0.51	1.81	14.46	127.96
By expenditure:								
Consumption	4.22	4.39	4.80	5.47	5.97	9.92	87.00	..
Investment (accumulation)	1.13	1.11	1.20	1.21	1.68	5.03	65.72	..
Losses	0.08	0.86	0.87	0.85	0.12	0.93	0.22	..
Net exports	-0.99	-1.01	-1.17	-1.15	-1.68	-0.84	-17.81	..
Constant prices[a/]								
Net material product	4.32	4.42	4.98	5.17	5.82	5.76	12.37	..
By industrial origin:								
Agriculture	1.49	1.61	1.79	2.08	2.39	2.05	6.31	..
Industry	1.67	1.65	1.95	1.77	2.03	2.35	3.59	..
Construction	0.56	0.60	0.64	0.65	0.66	0.71	0.80	..
Transport and communications	0.16	0.17	0.19	0.18	0.23	0.17	0.26	..
Others	0.44	0.39	0.42	0.49	0.51	0.49	1.41	..
By expenditure:								
Consumption	4.27	4.35	4.72	5.24	5.50	5.09	..	..
Investment (accumulation)	1.03	1.05	1.15	1.58	0.95	2.20	..	..
Losses and discrepancy	0.08	0.08	0.08	0.08	0.11	0.09	..	..
Net exports	-1.05	-1.06	-0.97	-1.72	-0.74	-1.61	..	..

Source: State Statistics Committee.

a/ In 1983 prices for 1985-88; in previous years, prices for 1989-92.

Annex Table A-8. Kyrgyz Republic: General government budget, 1985-94, selected years
(Rb billion)

	1987	1990	1991	1992	1993[a/]	1994[a/]
Revenue						
Total revenue	2.38	3.21	5.43	25.50	1.33	2.61
Of which:						
Grants (net)	0.39	0.91	1.93	0.86	0.46	0.30
Current revenue						
Tax revenue	1.76	2.18	2.66	22.36	0.72	1.66
Taxes on income and profit	0.58	0.56	1.03	10.47	0.30	0.65
Personal	0.26	0.20	0.38	2.69	0.07	0.43
Corporate	0.32	0.36	0.65	7.78	0.23	0.43
Taxes on goods and services	0.86	1.17	1.47	10.44	0.35	0.69
Turnover tax	0.86	1.17	1.17	..	..	..
Value-added tax	..	..	0.30	7.65	0.27	0.52
Excise taxes	..	..	..	2.79	0.07	0.17
Other taxes	0.32	0.45	0.15	1.46	0.08	0.15
Non-tax revenue	0.23	0.12	0.84	3.14	0.14	0.59
Capital revenue	..	..	..	..	0.01	0.05
Expenditure						
Total expenditure	2.23	3.18	4.73	52.38	1.69	3.47
Current expenditure	1.92	2.70	4.54	37.96	1,62	0.54
Wages and salaries	0.43	0.53	1.11	9.57	0.28	..
Goods and services	0.60	0.84	1.40	10.23	0.30	0.26
Interest payments	..	..	..	0.87	0.04	0.20
Transfers	0.89	1.33	2.03	10.53	0.98	..
Other	..	..	..	6.76	0.02	0.08
Capital expenditure	0.31	0.48	0.19	2.28	0.08	0.12
Net lending	..	..	..	12.14	0.47	0.52
Surplus/deficit	0.15	0.03	0.70	-26.88	-0.83	-0.96

Sources: International Monetary Fund and World Bank estimates based on data provided by the Government of the Kyrgyz Republic.

a/ Billions soms.

Annex Table A-9. Kyrgyz Republic: Summary of external trade, 1987-94, selected years
(Rb million)

	1987	1990	1991	1992	1993[a/]	1994[a/]
Total trade						
Exports	2,324	2,499	6,546	52,762	..	..
Imports	3,504	4,243	6,783	70,571	..	..
Balance	-1,180	-1,744	-237	-17,809	..	..
Of which:						
Inter-republic trade						
Exports	2,269	2,446	6,506	46,301	1,251	2,428
Imports	2,781	3,179	5,409	67,407	1,693	2,247
Balance	-512	-733	1,097	-21,106	-442	181
Extra-republic trade						
Exports	55	53	41	6,461	7	7
Imports	723	1,063	1,374	3,165	22	18
Balance	-668	-1,010	-1,333	3,296	-15	-11

Source: State Statistics Committee.

a/ Inter-republic trade in million soms, extra-republic trade in million dollars.

Annex Table A-10. Kyrgyz Republic: Exports by commodity groups, 1987-92
(Rb million)

	Inter-republic						Extra-republic						Total exports					
	1987	1988	1989	1990	1991	1992	1987	1988	1989	1990	1991	1992	1987	1988	1989	1990	1991	1992
Agriculture	114	108	96	87	182	792	23	11	6	5	3	33	137	119	102	92	185	825
Industry[a/]	2,150	2,424	2,433	2,340	6,311	45,448	32	47	45	48	27	6,383	2,182	2,471	2,478	2,388	6,338	51,832
Energy	42	78	80	67	188	3,047	-	-	-	-	-	-	42	78	80	67	188	3,047
Oil and gas	11	11	11	10	29	239	-	-	-	-	-	-	11	11	11	10	29	239
Coal	20	22	22	22	14	1,013	-	-	-	-	-	-	20	22	22	22	14	1,013
Processed foods	570	521	519	508	1,317	3,575	8	6	10	8	-	146	579	527	529	516	1,317	3,721
Light industry	654	651	650	640	1,898	11,295	3	14	10	9	3	1,414	657	665	660	648	1,901	12,709
Sawmill and lumber industry	5	5	5	4	17	301	-	-	-	-	7	185	5	5	5	4	25	486
Chemicals and petroleum	23	25	24	23	218	667	-	-	-	1	-	273	23	25	24	24	218	940
Building materials	19	13	17	13	67	1,445	-	-	-	-	-	10	19	13	17	13	67	1,456
Ferrous metallurgy	6	8	9	7	12	188	-	-	2	1	-	340	6	8	11	8	12	528
Non-ferrous metallurgy	122	129	124	145	492	2,208	10	17	18	19	8	3,454	132	146	142	164	499	5,663
Machinery and metalworks	663	939	946	882	2,010	20,947	11	11	5	11	8	559	674	950	951	893	2,018	21,505
Other industries	15	24	26	21	50	523	-	-	-	-	-	2	15	23	26	21	50	525
Other material production	5	5	20	19	12	61	-	-	-	-	11	45	5	5	20	19	23	106
Total	**2,269**	**2,537**	**2,549**	**2,446**	**6,506**	**46,301**	**55**	**59**	**51**	**53**	**41**	**6,461**	**2,324**	**2,595**	**2,600**	**2,499**	**6,546**	**52,762**
Memo item: Share to total trade	98	98	98	98	99	88	2	2	2	2	1	12	100.0	100.0	100.0	100.0	100.0	100.0

Source: State Statistics Committee.

a/ The only subsequent data available indicate inter-republic industrial exports of Som1,251 million in 1993 and Som2,428 million in 1994. No breakdown of these total figures into individual product categories is available.

Annex Table A-11. Kyrgyz Republic: Imports by commodity groups, 1987-92
(Rb million)

	Inter-republic						Extra-republic						Total imports					
	1987	1988	1989	1990	1991	1992	1987	1988	1989	1990	1991	1992	1987	1988	1989	1990	1991	1992
Agriculture	69	65	88	167	181	3,708	24	63	95	80	242	477	93	127	183	247	422	4,185
Industry[a/]	2,705	2,900	3,183	2,911	5,179	63,595	699	710	838	983	1,132	2,687	3,304	3,610	4,022	3,894	6,311	66,282
Energy	36	30	29	34	37	-	-	-	-	-	-	-	36	30	29	34	37	-
Oil and gas	292	314	325	269	578	19,654	-	-	-	-	-	-	292	314	325	269	578	19,654
Coal	42	31	32	38	85	2,137	-	-	-	-	-	-	42	31	32	38	85	2,137
Processed foods	287	264	344	248	436	3,047	346	348	348	415	644	1,200	633	612	692	663	1,080	4,247
Light industry	528	471	560	602	1,238	4,501	263	271	335	364	275	670	790	742	895	966	1,514	5,171
Sawmill and lumber industry	118	107	129	114	176	2,036	15	15	8	15	25	25	133	122	136	130	201	2,061
Chemicals and petroleum	312	339	349	323	566	7,216	30	20	60	51	44	531	342	358	409	374	610	7,747
Building materials	58	65	67	69	81	736	3	4	5	11	4	2	62	68	72	80	85	738
Ferrous metallurgy	168	187	168	167	292	4,280	9	8	5	3	11	6	177	195	173	171	303	4,285
Non-ferrous metallurgy	73	87	91	96	277	2,506	2	1	8	1	6	3	75	89	99	98	283	2,509
Machinery and metalworks	743	949	1,029	879	1,184	16,811	30	42	70	106	88	212	774	991	1,089	985	1,272	17,022
Other industries	50	56	71	71	229	673	1	1	1	16	37	39	51	57	71	87	265	712
Other material production	7	7	90	102	50	104	-	-	1	1	-	-	7	7	91	102	50	104
Total	**2,781**	**2,972**	**3,362**	**3,179**	**5,409**	**67,407**	**723**	**773**	**934**	**1,063**	**1,374**	**3,165**	**3,504**	**3,745**	**4,297**	**4,243**	**6,783**	**70,571**
Memo item:																		
Share to total trade	79	79	78	75	80	96	21	21	22	25	20	5	100.0	100.0	100.0	100.0	100.0	100.0

Source: State Statistics Committee.

a/ The only subsequent data available indicate inter-republic industrial exports of Som1,693 million in 1993 and Som2,247 million in 1994. No breakdown of these total figures into individual product categories is available.

Annex Table A-12. Kyrgyz Republic: Industrial production by subsector, 1980-93, selected years
(Rb million, constant 1982 prices)

	1980	1985	1988	1989	1990	1991	1992	1993
Processed foods	889	1,288	1,297	1,396	1,452	1,388	786	589
Food processing	547	905	835	949	1,016	1,052	568	459
Meat and dairy products	339	380	457	442	431	332	215	128
Fish	3	3	5	5	5	4	3	2
Light industry	1,246	1,600	1,785	1,882	1,874	1,984	1,740	1,530
Textiles	925	1,193	1,354	1,406	1,377	1,407	1,264	1,126
Clothing	225	290	317	347	363	443	374	329
Leather and shoes	96	117	114	129	134	134	102	75
Heavy industry	1,563	1,954	2,439	2,472	2,445	2,509	1,787	1,187
Energy	179	275	334	356	332	342	283	256
Electricity	130	205	272	295	274	288	249	231
Fuels	49	70	62	61	58	54	34	25
Wood products	75	105	115	115	107	120	106	68
Chemicals	23	34	46	44	46	48	24	15
Building materials	190	246	305	304	310	304	202	108
Metallurgy	134	162	252	277	296	298	266	206
Machine building	962	1,132	1,387	1,376	1,354	1,397	906	534
Other	500	703	757	835	730	601	458	315
Total	**4,198**	**5,545**	**6,278**	**6,585**	**6,501**	**6,482**	**4,771**	**3,621**

Source: State Statistics Committee.

Annex Table A-13. Tajikistan: National accounts, 1985-94, selected years
(Rb billion)

	1985	1987	1988	1989	1990	1991	1992	1993	1994
Current prices									
Gross social product	9.77	10.12	10.79	10.83	11.38	23.03	142.03	1,162.43	3,093.78
Material inputs	5.33	5.76	5.91	6.01	5.89	12.49	98.93	680.46	1,808.78
Net material product	4.44	4.34	4.88	4.82	5.49	10.54	43.11	481.98	1,284.99
By industrial origin:									
Agriculture	1.63	1.54	1.80	1.80	2.02	4.63	6.63	147.56	326.04
Industry	1.56	1.50	1.51	1.28	1.50	3.23	25.85	227.77	595.22
Construction	0.54	0.64	0.71	0.74	0.77	1.35	4.87	72.39	206.53
Transport and communications	0.15	0.16	0.18	0.19	0.22	0.27	1.70	10.03	58.39
Others	0.56	0.51	0.68	0.81	0.98	1.07	4.06	24.24	98.81
By expenditure:									
Consumption	3.90	4.14	4.36	4.64	5.15	8.78	39.63	281.40	..
Investment (accumulation)	1.31	1.10	1.28	1.07	0.88	1.63	6.37	161.60	..
Losses	0.08	0.13	0.12	0.18	..	0.17	4.03	..	..
Net exports[a/]	-0.86	-1.01	-0.88	-1.06	-0.54	-0.04	-6.92	..	..
Constant prices									
Net material product	68.04	69.44	77.84	75.57	74.34	65.04	43.11	..	..
By industrial origin:									
Agriculture	11.95	11.62	12.89	11.21	10.19	9.18	6.63	..	..
Industry	28.33	29.67	34.29	34.43	35.78	32.28	25.85	..	..
Construction	14.72	16.13	18.30	19.38	18.73	18.23	4.87	..	..
Others	31.90	32.61	34.49	36.71	37.51	16.33	5.76	..	..
By expenditure:									
Consumption	56.55	61.33	64.20	66.69	69.13	54.19	39.63	..	..
Investment (accumulation)	19.01	16.31	18.90	15.33	11.81	10.03	6.37	..	..
Losses and discrepancy	..	..	..	..	..	..	..	..	..
Net exports	..	..	..	..	..	..	..	..	..

Source: State Statistics Committee.

a/ Net exports are derived as the difference between national income produced and national income used, except for 1992 in which it is an actual trade balance.

Table A-14. Tajikistan: General government budget, 1985-94, selected years
(Rb million)

	1985	1990	1991	1992	1993	1994
Revenue						
Total revenue	1,805	3,436	6,069	18,442	172,493	772,243
Of which:						
Grants	203	1,168	2,900	-	-	-
Current revenue	1,602	2,268	3,169	18,442	172,493	772,243
Tax revenue	1,465	1,982	2,385	14,736	141,720	725,873
Taxes on income and profit	396	554	966	7,024	57,901	259,579
Personal	110	185	334	1,635	13,954	51,748
Corporate	286	369	632	5,389	43,947	207,831
Social security contributions	130	232	-	-	-	-
Taxes on payroll or workforce	104	167	-	-	-	-
Taxes on property	4	-	22	212	-	63,103
Taxes on goods and services	888	1,065	1,199	6,730	78,816	345,138
General sales, turnover or value added taxes	888	1,065	1,199	4,585	65,416	248,720
Excises	-	-	-	2,145	13,400	96,412
Others	-	-	-	-	-	6
Taxes on international trade	-	26	3	87	1,316	54,170
Import duties	-	-	-	43	-	-
Export duties	-	26	3	44	1,316	-
Other	-	-	-	-	-	54,170
Other taxes	-	-	-	-	-	-
Non-tax revenue	137	286	784	3,706	30,773	46,370
Expenditure						
Total expenditure	1,727	3,185	5,020	37,094	329,055	945,245
Surplus/deficit	78	251	1,049	-18,652	-156,562	-173,002

Source: World Bank, *Statistical Handbook 1995 – States of the Former USSR*, Washington DC, 1995.

Annex Table A-15. Tajikistan: Summary of external trade, 1990-94
(Rb million)

	1990	1991	1992	1993[a/]	1994[a/]
Total trade					
Exports	2,686	3,701	36,646	..	..
Imports	4,127	3,668	30,886	..	..
Balance	-1,441	33	5,760	..	..
Of which:					
Inter-republic trade					
Exports	2,378	3,201	16,433	110,923	242,574
Imports	3,359	3,067	23,839	185,346	547,756
Balance	-981	134	-7,406	-74,423	-305,182
Extra-republic trade					
Exports	308	500	20,213	263	382
Imports	768	601	7,047	374	298
Balance	-460	-101	13,166	-111	84

Source: State Statistics Committee.

a/ Extra-republic trade in million dollars.

Annex Table A-16. Tajikistan: Industrial production by subsector, 1985-94, selected years
(Rb billion, constant January 1994 prices)

	1985	1990	1991	1992	1993	1994
Processed foods	433.96	489.10	391.42	276.15	199.47	138.85
Food processing	220.75	238.55	229.96	160.28	143.77	102.37
Meat and dairy products	211.09	247.83	158.61	86.29	53.32	35.03
Fish	2.12	2.72	2.85	1.86	2.38	1.45
Light industry	642.77	683.87	681.11	589.78	655.32	407.15
Textiles	551.11	579.76	573.96	517.14	590.58	379.15
Clothing	38.43	41.97	47.18	33.54	37.53	21.85
Leather and shoes	53.23	62.14	59.97	39.10	27.21	6.15
Heavy industry	1,285.33	1,668.09	1,526.66	983.41	741.97	593.95
Energy	183.19	161.20	143.10	107.18	102.75	89.17
Electricity	81.65	90.58	89.22	84.23	89.37	80.52
Fuels	101.54	70.62	53.88	22.95	13.38	8.65
Wood products	44.91	47.35	53.50	33.60	26.58	5.66
Chemicals	179.76	266.04	272.42	125.04	72.02	48.98
Building materials	228.49	257.89	243.45	88.37	71.85	44.83
Metallurgy	510.63	755.54	634.65	512.16	377.47	349.16
Machine building	138.35	180.07	179.53	117.06	91.30	56.15
Other	99.17	15.49	154.53	262.94	325.21	190.05
Total	**2,461.23**	**2,856.55**	**2,753.72**	**2,084.56**	**1,921.97**	**1,330.00**

Source: State Statistics Committee.

ANNEX B

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National Patent Agency
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Kazak Foreign Trade Bank
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Almaty
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Office of the Deputy Prime Minister for Privatization
Government House
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Fax: (3312) 22 74 04
Telex: 227292

Ministry of Trade and Industry
Government House
Bishkek
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Fax: (2213) 21 86 27

Commission of Foreign Investment
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Bishkek
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Fax: (3312) 21 34 65
Telex: 251239

State Committee for Geology and the Use
and Protection of Minerals
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Bishkek
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State Committee for Prices and Anti-monopoly Policy
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Dushanbe
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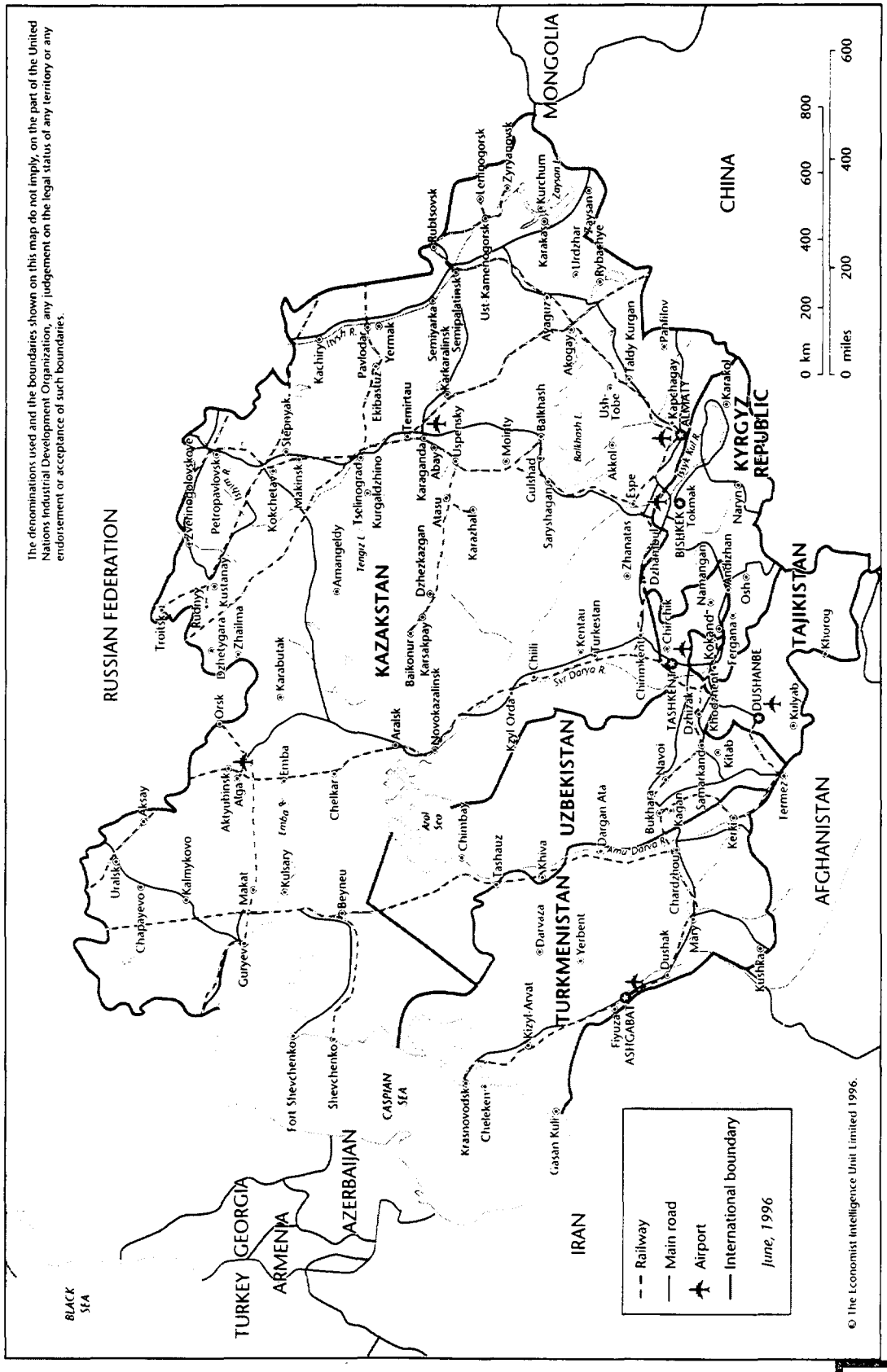
MAP



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