

VIII ECONOMIC REFORM IN ASIAN TRANSITION ECONOMIES

INTRODUCTION

A number of economies in Asia, including the PRC, the Lao PDR, Mongolia, Viet Nam, and the Central Asian Republics of Kazakhstan, Kyrgyz Republic, and Uzbekistan, have in recent years moved, at varying speeds and with varying success, from centrally planned to market-oriented economies. The transition process involves some or all of the following policy reforms:

- macroeconomic stabilization to reduce budget deficits;
- external-trade liberalization to remove trade barriers and rationalize the exchange-rate regime;
- liberalization of prices;
- legalization of nonstate enterprises and removal of legal discrimination based on type of ownership; and
- transformation of the system of property rights, leading to privatization of state-owned enterprises and establishment or extension of private property (Parker, Tritt, and Woo 1997).

The PRC began the process of economic transition in 1978; the Lao PDR and Viet Nam followed in 1986. The Central Asian Transition Economies (CTEs) and Mongolia began their transitions in 1991 following the collapse of the Soviet Union. In the East and Southeast Asian Transitional Economies (ETEs)—the PRC, the Lao PDR, Viet Nam—the opening of the economy initiated periods of rapid growth. The PRC's GDP grew at a

rapid rate of 9.9 percent per year between 1978 and 1996, compared to a pre-reform growth rate of 5.2 percent per year; the Laotian GDP grew at 5.5 percent per year between 1986 and 1996, compared with annual pre-reform growth of 5.1 percent, and the Vietnamese GDP grew at 7.1 percent annually between 1986 and 1996, compared to the 3.8 percent per year during the pre-reform period (Table VIII.1).

Agricultural-sector growth has been an important force for economic growth in some transition economies, increasing in both the PRC and Viet Nam during the reform process compared to pre-reform performance. Annual growth in real agricultural GDP averaged 5.1 percent in the PRC during 1978–96, compared to the 2.2 percent in the pre-reform period, and 4.9 percent in Viet Nam during 1986–96, compared to pre-reform growth of 3.8 percent. In contrast, the Central Asian transition economies, together with Mongolia (which is geographically in East Asia, but in terms of transition experience, closer to Central Asia) experienced huge economic declines at the onset of the transition. Real GDP contracted sharply in all the CTEs during the early transition period. There were considerable differences in the growth performances among these countries, however, with the Kyrgyz Republic experiencing the sharpest drop from positive 7.5 percent per year to negative 10.9 percent annually. By 1996, output in the Kyrgyz Republic was only 56 percent of the 1991 level; in Kazakhstan, 60 percent; and in Uzbekistan, 84 percent. In Mongolia, on the other hand, the decline in output was relatively less.

Still, agricultural value added in 1996 was only 65 percent of the 1991 value in Kazakhstan, 87 percent in Uzbekistan, and 95 percent in the Kyrgyz Republic. In Mongolia, on the other hand, agricultural output actually increased at 2.33 percent per year in the post-reform period. The economic decline was accompanied by hyperinflation, reaching over 1,000 percent annually in the CTEs. The economies of Central Asia and Mongolia have nevertheless apparently turned the corner, with positive economic growth resuming and hyperinflation coming under control. Real GDP growth in Kyrgyz Republic was 5.6 percent in 1996 and was estimated at 6.0 percent for 1997; in

Table VIII.1: Comparison of Transition Economies in Asia

	PRC	Lao PDR	Viet Nam	Mongolia	Kazakhstan	Kyrgyz Republic	Uzbekistan
Pre-Reform							
Growth in real GDP (percent per year)	5.24	5.05	3.81	2.20	-0.92	7.54	4.71
Growth in real ag. GDP (percent per year)	2.18	n.a.	3.80	3.18	n.a.	5.47	3.91
Post-Reform							
Growth in real GDP (percent per year)	9.91	5.52	7.14	-0.46	-9.86	-10.87	-3.48
Growth in real ag. GDP (percent per year)	5.11	5.37	4.93	2.33	-8.12	-0.95	-2.86
At beginning of reform							
Agriculture as % of GDP	28.1	60.6 ('89)	36.1	14.1	26.7 ('92)	37.8	37.1
Industry as % of GDP	48.2	13.4 ('89)	35.3	34.2	44.6 ('92)	36.0	35.7
GDP per capita, con. 87 US\$, PPP	700.0 ('80)	715.7	833.9 ('89)	1568.5	3986.8	2703.0	2448.6
Employment in agriculture as % of employment	75.1	78.7	72.1	32.0 ('90)	22.2 ('90)	32.1 ('90)	34.9 ('90)

Note: Pre-reform growth rates are 1966-77 for the PRC; 1984-85 for Lao PDR and Viet Nam; and 1987-90 for the rest; post-reform growth rates are 1978-96 for the PRC; 1986-96 for Lao PDR and Viet Nam; and 1991-96 for the rest. Individual values are for reform begin (PRC: 1978; Lao PDR and Viet Nam: 1986; rest: 1991) unless indicated otherwise.

Source: WDI (World Bank), for Kazakhstan and Lao PDR post-reform ag. GDP and for Mongolia pre- and post-reform: 1998e.

Kazakhstan, growth was estimated at 0.5 percent in 1996 and at 2.0 percent in 1997; and in Uzbekistan, growth was estimated at 1.6 percent in 1996 and at between 2.4 percent and 5.2 percent for 1997 (World Bank 1998e). In Mongolia, growth was 2.6 percent in 1996 and projected to exceed 3 percent in 1997 (World Bank 1998c).

In this chapter are explored the underlying factors that have influenced the performance of the transition economies of Asia, with special reference to the agricultural sector. What determined the relative success of the PRC, Lao PDR, Viet Nam, Mongolia, Kazakhstan, Kyrgyz Republic, and Uzbekistan in the transition process, and what policy lessons can be drawn from the transition process? Which underlying factors, especially agricultural factors, influenced their performance? Some of the important issues that can influence the outcome of the transition process include

- the impact of strategy, policy, and sequencing of reforms compared to exogenous factors and country-specific initial conditions such as agrarian structure and pattern of industrialization;
- the speed with which the reform package was implemented;
- the pace and method of reform of state enterprises, the tools and degree of privatization, and the creation of property rights to establish positive incentives;
- the impact of trade liberalization and the integration into the world economy; and
- environmental and social policy (Parker, Tritt, and Woo 1997; Green and Vokes 1997; Rana 1995a).

INITIAL CONDITIONS AND EXOGENOUS SHOCKS

Perhaps the biggest initial difference between the ETES (PRC, Lao PDR and Viet Nam) on the one hand and the CTEs and Mongolia on the other was in the motivating force behind

the transition process. Reform in the ETEs was driven by internal developments—primarily dissatisfaction with economic performance—and was undertaken by essentially stable governments. The beginning of reform in the PRC followed the poor performance of the economy, and agriculture in particular, during the Cultural Revolution of 1966–76. Economic and agricultural growth was similarly discouraging in the Lao PDR, following the establishment of the People’s Democratic Republic in 1975, and in Viet Nam, following reunification in 1975. Both countries began market-oriented reforms in the mid-1980s with the *Jin Tanakan Mai*, or New Economic Mechanism, in the Lao PDR and the *Doi Moi*, or renovation policy, in Viet Nam (Green and Vokes 1997).

Reform was forced on the CTEs and Mongolia by the twin shocks of the breakup in 1990 of the Soviet-run Council for Mutual Economic Assistance (CMEA) trade and financial arrangements, followed by the collapse of the Soviet Union itself in 1991. The breakdown of the Soviet-based economic system caused the termination of payment mechanisms for cross-border transactions, the loss of traditional markets, the end of massive budget transfers from the central government of the Soviet Union, a sharp deterioration in the terms of trade for traditional exports, and hyperinflation that discouraged savings and investment and distorted price signals (Green and Vokes 1997; Parker, Tritt, and Woo 1997). These massive initial shocks drove an economic downturn comparable in magnitude to the Great Depression in the United States in the 1930s.

Fundamental differences in initial economic structure also have had a profound influence on the performance of the transition economies. In the CTEs and Mongolia, the state sector accounted for 80 to 90 percent of GDP and of employment at the time of the Soviet Union’s demise. The state sector was much smaller in the Lao PDR and Viet Nam at the onset of economic reform (similar in fact to those of other, noncentrally planned developing countries), accounting for 15 and 22 percent of GDP, respectively, and less than 10 percent of employment. The state sector in the PRC was intermediate in size, accounting for about 57 percent of GDP and 45 percent of employment. Moreover,

the PRC economic planning system, while centralized and hierarchical in principle, was much less extensive than in the CTEs and Mongolia (Rana 1995a, 1995b). The dominance in the CTEs and Mongolia of an inefficient state sector that was heavily dependent on subsidies and economic linkages with the Soviet Union has been a severe constraint on resumption of economic growth.

Directly related to the dominance of the state sector is the relatively large importance of the industrial sector in the CTEs, as compared to some of the ETEs, like the Lao PDR and Viet Nam. At the beginning of the reform process, industry accounted for about 45 percent of GDP in Kazakhstan and 36 percent in the Kyrgyz Republic and Uzbekistan (Table VIII.1). The high level of industrialization posed a transition problem in the CTEs because the industrial sector was extremely inefficient, depending on subsidies and intra-Soviet Union economic relationships. Analyses of the causes of economic decline and recovery in Eastern Europe and the former Soviet Union have found that the degree of "overindustrialization" was an important explanatory factor for economic performance during the early years of transition and reform. Overindustrialization captures the degree of industrialization at the beginning of the transition relative to the degree of industrialization typical of a market economy in the same range of GDP per capita (De Melo et al. 1997). The lower degree of overindustrialization in Uzbekistan compared to the other countries of the former Soviet Union and Eastern Europe, for example, has been identified as an important factor explaining its relative success during the early transition years (Taube and Zettelmeyer 1998; Zettelmeyer 1998).

The structure of the agricultural sector itself has been a further defining difference between the CTEs and Mongolia on the one hand and the ETEs on the other. The critical differences are in the scale and management of production and the nature of the technology utilized. In the CTEs, agriculture was organized into *sovkhozy* (state farms) and *kolkhozy* (collective farms). These state enterprises were in general very large, with those in Kazakhstan averaging 35,000 to 40,000 hectares, for example. Heavy capital investment was made in rural roads,

irrigation, and large-scale farm machinery, but much of this investment was highly inefficient (Green and Vokes 1997). Agricultural-production decisions were driven by command-and-control agricultural polices similar to those of the Soviet Union. In this system, the State owned and exploited the land and determined the amount and composition of agricultural production according to the overall needs of the economy for food and foreign exchange. It also set the production share accruing to the government (which was virtually 100 percent until 1990) under the state order system; determined the requirements of chemical inputs for collective and state farms; and established farm, input, and consumer-goods prices separately from production quotas, often after planting. Finally, it restricted the movement of labor within the rural sector and between the rural and urban sectors. At the same time, the government compensated farmers for the difference between production costs and planned income, either through budgetary transfers (the state farms) or through input subsidies (the collective farms). State production orders, highly subsidized fixed input prices, and fixed output prices determined artificial profits pre-set for each farm, with essentially no flexibility for decision-making at the individual farm level.

As a result of these policies, agriculture in the CTEs faced a serious crisis well before the beginning of economic transition. The command-driven cotton monoculture that dominated much of Central Asia had caused devastating environmental problems, including excessive water use, high water losses, and associated waterlogging, increased soil salinity, declining water quality, and the deterioration of the Aral Sea and its immediate vicinity (see Box VIII.1).

Crop yields are very low compared to yields in developing countries with similar agroclimatic environments. In 1987, 7 percent less cotton was produced on 15 percent more land compared with the 1976-1980 averages in the five Central Asian Republics (Frederick 1991). Although the inherent faults in agricultural policy and the first signs of the approaching crisis became evident in the 1970s, they were simply ignored under the prevailing command-administrative system of management.

Box VIII.1: The Aral Sea Disaster

The Aral Sea region is a notorious example of the wide-reaching negative consequences of the command-and-control policies exercised in the CTEs. The rapid increase in irrigated areas since the 1960s—particularly for cotton cultivation—in this arid Central Asian region had devastating economic, ecological, and health consequences.

The Aral Sea level is determined by the inflow of two feeding rivers, the Amu Darya and the Syr Darya. In the 1960s, this inland lake was the world's fourth largest, but due to extensive irrigation water withdrawals from the rivers, inflows that were once 72 km³ and 37 km³ per year, respectively, have dropped to a combined total of less than 10 km³, on average, during the last decade.

As a result, the surface area of the Aral Sea declined by almost 50 percent and 35 million people lost access to the use of the lake for its water, fish, reed beds, and transport. The area surrounding the Aral became completely desolate, the animal and plant life has been significantly decimated or destroyed, and desert storms now carry tons of toxic wastes over many kilometers.

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The CTEs thus entered the transition period with a large-scale, low-productivity, poorly managed, and highly inefficient and inflexible agricultural sector.

In the ETEs, agricultural performance was also relatively weak under the pre-reform institutions, but the structure of agriculture was more conducive to rapid output response to economic reform. Agricultural production was organized into state farms and collectives, with the latter predominating, but was never as fully communalized or centrally controlled as in the CTEs. Moreover, operational farm sizes in the ETEs were very small and therefore more easily adaptable to changing relative prices and opportunities during the transition.

Box VIII.1 (continued)

Mismanagement and excessive use of irrigation water have contributed to the transport of salts with the drainage water, which, together with the rapid rise of the groundwater level, has led to the progressive salinization of soils. More than 30 percent of irrigated areas of the Central Asian Republics have a medium to high degree of salinization; land losses due to salinization are estimated at 1 million hectares over the past 30 years. Water quality declined dramatically, due to the limited waste-dilution capacity of the rivers, high salt concentrations flushing out from irrigated areas, and runoff of agricultural chemicals (including defoliants from cotton harvesting).

In the lower reaches of the Syr Darya river, morbidity has increased 20-fold over the last 20 years. Infant mortality in a number of districts exceeds 110 per 1,000, that is, three times the average for the former Soviet Union. Out-migration increased and both living standards and life expectancy declined considerably in the region, especially after the collapse of the Soviet Union. The cotton bias led to a gradual decline of agricultural productivity and production and contributed to the general economic decline in the region.

Source: Golubev 1993; Cai 1999.

Although in the PRC, for example, collective farms accounted for more than 95 percent of total cultivated land area, the farms were arranged in much smaller units of about 50,000 communes with, on average, 2,033 ha; and these, in turn, were disaggregated into 750,000 production brigades with about 136 ha and approximately 5 million production teams of about 20 ha, which was the actual unit of production. In addition, private plots, limited to 5–10 percent of the teams' land, were distributed to individual households. Moreover, private activities (including animal raising, handicraft and other activities) accounted for 30–50 percent of total household income. Only a small part of the land was cultivated through state farms (Wong 1996). In

the Lao PDR, collectivization efforts, begun in 1976, were undertaken on a much smaller scale and even at their peak affected less than half of the cultivated area, due to strong farmer resistance and declining productivity. Many of the cooperatives consisted of little more than traditional labor exchange groups renamed to benefit from the lower taxes and other subsidies accorded by the Government (Vokes and Fabella 1996; Green and Vokes 1997).

In Viet Nam, the collective system was well established in the north, but cooperatives had considerable autonomy from government administrative control. Farm households were allowed to work 5 percent of their land as private plots, but in practice the area under private plots was often considerably larger. Prior to reunification in 1975, agriculture in the south was similar to smallholder agriculture in other Southeast Asian countries. Efforts to collectivize agriculture in the south beginning in 1976 were met with strong farmer resistance. As a result, only 5.9 percent of all farmers were organized in collective farms in the Mekong Delta, for example. Whereas in the north cooperative farm work was carried out by production teams using communally owned equipment, in the southern collective farms, production activities were mainly carried out on a family-farm basis, and collective effort was only made for obtaining inputs and for marketing outputs (Pingali and Xuan 1992). Although in principle the system was very close to that of the Soviet Union, planners actually had much weaker control over the economy in many ways. Agriculture was incompletely collectivized and extensive parallel markets, with wide differentials between free-market and state prices, were tolerated (Fforde and De Vylder 1996). After 1980, limited reforms were implemented throughout the economy through a contract farming system that permitted individual families to farm the land following land preparation.

As shown in Table VIII.1, the share of agriculture in total employment in the ETEs was also very high at the beginning of the economic transition process. When the transition process initiated rapid industrial growth, the large reservoir of relatively unproductive labor in agriculture provided low-cost labor to

the growing industrial sector without damaging agricultural growth.

Thus, prereform agriculture in the ETEs was small-scale, relatively labor-intensive, and relatively decentralized compared to that in the CTEs and Mongolia. These structural differences constituted a significant advantage as the countries entered the transition process. With small-scale agriculture, production techniques and cropping choices can adapt rapidly in response to changing relative prices and trade liberalization, even without well-functioning financial markets. The decentralized nature of agriculture further facilitates output response to economic reform and encourages the development of small-scale trading and rural services and industry. Labor released from agriculture during the reform process was a crucial enabling factor for industrial growth. Reform of the capital-intensive, centralized collective farms in the CTEs has proven much more difficult. Recovery and positive supply response to reform is dependent on changes along the entire processing and marketing chain; weaknesses anywhere in the chain can slow the response (Rana 1995a; Green and Vokes 1997).

AGRICULTURAL REFORM

Starting from these very different preconditions, agricultural reform has been a key factor in the process of economic transition in the ETEs, but has been slow and ineffective in the CTEs. The PRC was the path breaker in agricultural reforms that served as a model for Viet Nam and the Lao PDR. Agricultural reform in the PRC began in 1978 with the reorganization of production and the improvement of incentives. The so-called household responsibility system was an important component in the reform process. Under this system, labor teams' lands were divided and contracted to individual households, which became responsible for production and allocation decisions, as well as for delivering taxes and quota and above-quota sales to the state. Although

land ownership remained with the village, land use contracts were usually set for 15–25 years, which provided enough security to establish incentives for farmers to invest in farm improvements and resulted in productivity increases. After initial successes, this system spread to over 90 percent of all production teams. Whereas in 1978 the average team size was about 20 ha, after the decentralization, the average farm size was about 0.4 ha—a *de facto* return to private farming. Moreover, in 1993, a new policy was adopted to extend land leases for an additional 30 years when existing contracts expired. Thus, the fundamental reform that induced rapid productivity growth in PRC agriculture after 1978 has been the combination of the household responsibility system and improved security in land rights (see also Chapter V).

Nevertheless, the reform of property rights in the PRC has not fully secured these rights; a number of studies have pointed to continued weakness in property rights as one reason for the recent slowdown of growth in the farm sector (Ahuja et al. 1997). The household responsibility system individualized the claim to residual income, but continued to vest land ownership in the collective, thus discouraging farmers from making long-term investments in the land (Wen 1995; Choe 1996). Empirical analysis indicates that continued land-tenure insecurity has adversely affected medium- and long-term investments in farms in the PRC (Yao 1995); Feder et al. 1992). These results indicate that granting absolute individual land rights could boost agricultural productivity (Prosterman, Hanstad, and Ping 1996; Crook 1994).

Complementary reform measures further accelerated output growth in the PRC agriculture sector. Beginning in 1979, price incentives were improved by reductions in procurement quotas, increases in quota and above-quota prices, and the liberalization of rural markets and private trade. In early 1985, the mandatory quota system was changed to a contract procurement system, in an attempt to reduce the government's financial burden and to increase the role of markets in grain production and distribution. The contract system reduced farmer incentives, however, and included demands for contract

management and enforcement of contracts that could not be met by existing institutions. Thus, by the end of 1985, the contract system was abolished and mandatory quotas were re-established. Grain procurement prices were sharply raised between 1986 and 1989, but these were accompanied by continued increases in farmer autonomy. As a result, farmers diversified into more profitable activities such as fruit production, fisheries, and rural nonfarm enterprises. In the 1990s, agricultural policy has continued to waver between liberalization of output markets and concerns for the impacts of such liberalization on consumers. In 1993, both procurement and ration (selling) prices of grain were liberalized, resulting in rapid increases in the market prices for grains between 1993 and 1995, which, in turn, induced the government to re-impose some administrative restrictions on grain markets (Lin 1997).

Despite these highly beneficial agricultural-sector reforms, broader economic policies have continued to penalize agriculture in the PRC, as in the nontransition economies of East and Southeast Asia. Trade and exchange-rate policies systematically depress the domestic prices of agricultural produce below international parity prices, while increasing the prices of manufactured goods.

Agricultural reforms in the Lao PDR and Viet Nam followed a path similar to that of the PRC, beginning at a later date but then proceeding rapidly. In the Lao PDR, rural reforms were initiated in 1986, when collectivization was de-emphasized and a return to family farming encouraged. Long-term leases and inheritance rights to leases were granted. Given that collectivization was not far advanced, these reforms mainly formalized existing usufructuary rights. Agricultural marketing was liberalized in 1987, allowing the private sector to compete with state enterprises. Price and exchange-rate reforms were introduced in 1988, removing price controls on all but eight strategic commodities. The official exchange rate was unified and depreciated, improving agricultural competitiveness (Hamid 1995).

In Viet Nam, agricultural reform began in 1986, and by 1988 the process of decollectivization had also shifted most

decision-making power back to farm households. The system of agricultural-commodity procurement at below-open market prices was also eliminated in 1988. In 1989, virtually all prices were deregulated, so that all commodity prices were market-determined and direct subsidies nearly eliminated. State agencies still control much of large-scale wholesale and international agricultural trade, but local markets are largely in private hands. As in the Lao PDR, price reforms were accompanied by currency devaluation, which further increased the competitiveness of agriculture (Hamid 1995; Green and Vokes 1997).

The agricultural reform experience in the CTEs stands in stark contrast to that of the ETEs, with reform measures buffeted by the devastating economic crises following the breakup of the Soviet Union. Of the three countries reviewed here, the Kyrgyz Republic has undertaken the most comprehensive agricultural reforms, while reforms have been slowest in Uzbekistan. The reform experience in agriculture and other sectors in Mongolia is summarized in Box VIII.2. In the Kyrgyz Republic, the state mandatory sales system had been eliminated by 1995, most state and collective farms had been converted to joint-stock farms, input and output markets had been liberalized and the maximum period of land use rights had been extended from 49 to 99 years. Private farms now account for one third of cropped area. For crops where private smallholder farming activity had been most active, such as vegetables and potatoes, these reforms have improved incentives and boosted production. Production also recovered somewhat in the grain sector after 1994.

Of the utmost importance in agricultural reform in the Kyrgyz Republic, as well as the other CTEs, will be the creation of genuine incentives in the ownership structure of the at least nominally reformed state and collective farms. In principle, the "shareholders" in joint-stock farms should be motivated to improve productivity in order to maximize dividends on their shares, but this incentive structure has in fact rarely been implemented even in the nominally reformed joint-stock farms. In most cases, neither dividends nor shares have practical significance, so there is no true sense of ownership. In essence,

the shareholders continue working under the direction of the previous collective-farm manager. More thoroughgoing reform will be required to introduce appropriate incentives into large-scale farms in the region. An alternative model, adopted in much of Eastern Europe, is the dismantling of the state and collective farms and the distribution of land and assets to individuals, creating several hundred private farms in place of one collective farm (Brooks and Lerman 1994). This process has already been undertaken to a limited extent in the CTEs.

In Kazakhstan, more than 90 percent of the state and collective farms have been at least privatized by conversion into joint-stock companies or cooperatives. On many or most of these farms, however, the legal status of land titles is ambiguous and many farms have not actually been restructured (ADB 1997b). Nevertheless, there has been an increase in activity on household plots, individual farms, and small agricultural enterprises. In 1990, private farming accounted for less than 10 percent of crop production and about 40 percent of livestock production, but by 1995, its share had increased to more than 25 percent and 65 percent, respectively (De Broeck and Kostial 1998).

In the Soviet era, Kazakhstan was the largest grain exporter to other parts of the Soviet Union, averaging around 10 million metric tons per year in the 1980s. During the early stages of transition, the Kazakh government imposed trade restrictions, such as export tariffs on wheat, in an attempt to maintain domestic food availability. State procurement in agriculture was initially maintained, but broke down during the transition as output was sold outside the state order system. The state procurement system and direct government subsidies to agricultural credit and inputs were virtually eliminated by 1995, with direct government subsidies to agriculture declining from 10–12 percent of GDP prior to independence to about 2 percent of GDP in 1995.

Simultaneously with Kazakhstan's cutback in direct subsidies, there was a sharp contraction in credit to agriculture: by the end of 1995, bank loans to the agricultural sector were less than 1 percent of GDP, down from 5 percent in 1993. A final blow to agriculture was the rapid deterioration in the terms of

Box VIII.2: The Reform Experience in Mongolia

In the pre-reform period, the Mongolian economic structure more or less mirrored the situation in the Central Asian Republics. Agriculture, mainly livestock production, was organized into state-owned farms and cooperatives comprising, on average, 400,000 ha and 23,000 ha, respectively. This sector contributed only 14 percent to GDP before the reform process, compared to the 34 percent of the industrial sector. A wide range of social services was provided by the Government, resulting in very high social indicators compared to countries with similar per capita income.

At the outset of the reform process, Mongolia experienced possibly the largest contraction in external economic relations of all formerly Soviet-dependent economies. Trade volumes with former CMEA countries dropped sharply and Soviet credits, averaging about 37 percent of GDP annually, abruptly stopped.

Mongolia's initial approach to reform was partial and often diffuse, ranging from some more radical measures, like the world's first voucher privatization program, to the maintenance of government control over trade, foreign exchange, and resource allocation. Significant reforms were

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trade following price liberalization and hyperinflation. In 1992/93, agricultural prices increased by only half as much as prices in other sectors; in 1993, the prices of agricultural inputs increased 18.8 times while output prices increased 7.8 times. The agricultural terms of trade have continued to deteriorate in subsequent years (De Broeck and Kostial 1998).

A fundamental question remains as to whether the previous size and composition of the agricultural sector in Kazakhstan (and much of the rest of Central Asia) is viable in a market-oriented economy. The extensive grain and livestock agriculture practiced in Kazakhstan was as much the result of

Box VIII.2 (continued)

realized within three years in all economic sectors, however. All of the smaller enterprises and more than half of the large state enterprises have been sold via auctions or insider buyouts via vouchers. Agricultural cooperatives have been completely eliminated and the assets have been distributed to the members, but about half of the state farms have remained in public hands. Whereas the early reform period was characterized by high inflation and lack of monetary control, the situation stabilized in the mid-1990s. Price liberalization and the dismantling of the state order system were implemented gradually, responding to the needs of the growing private sector.

Despite some lopsided policy measures, the Mongolian example is often cited as a successful one for the transition to a democratic market system. This was possible because, among other reasons, (i) Mongolia's socialist ideology was less entrenched; (ii) early parliamentary elections helped ensure macroeconomic reforms; and (iii) the support of private business led to a gradual reform in the other economic sectors. However, almost 30 percent of the population still lives below the poverty line, social indicators have worsened in the post-reform period, and foreign investment in this remote economy has been sparse.

(Boone et al. 1997).

politically motivated policies, such as the Soviet Virgin Lands campaign of the 1950s, as it was the result of economic considerations. In addition to agroclimatic limitations to productive agriculture in much of the area cropped prior to independence, the geographic isolation of Kazakhstan (with consequent high transportation costs) is a serious constraint on production for external markets. Even an efficient, reformed agricultural sector in Kazakhstan could be considerably smaller than the pre-independence agricultural sector.

Uzbekistan is the largest agricultural producer among the CTEs and agriculture has played an important part in the

relatively strong performance of the Uzbek economy during the transition period. Agriculture in Uzbekistan accounts for 35 to 40 percent of GDP and contributes about 60 percent of Uzbekistan's export earnings—largely due to cotton exports—and is responsible for 40 percent of total employment. Agricultural reform has been slow, however, and severe barriers to sustained growth remain. Uzbekistan has nominally reformed much of the *sovkhoz* and *kolkhoz* sector: by 1994 most *sovkhozy* had been converted to *kolkhoz* joint stock companies, without much real change in management or improvement in production incentives. Property rights to land and security of tenure remain uncertain and the transition to autonomous cooperative management or private farming has been slow. Most rural people live and work on about 2,000 former *sovkhozy* that have been transformed into *kolkhozy*. Farm workers on *kolkhozy* have been allocated small household plots, averaging 0.2 ha, to supplement household food supplies and incomes. The government has also recently given about 20,000 private farmers the right to use land allocated from collectives and former state farms. These private (or *dekhan*) farms range in size from 5 to 100 ha, with an average farm size of about 20 ha. Household plots and *dekhan* farms are an important source of agricultural growth; about one half the value of agricultural production, mainly fruits, vegetables, and livestock products, come from household plots that account for only 15 percent of irrigated land (ADB 1998a).

Most agricultural commodities have been freed from the compulsory state procurement system, but officially sanctioned trade associations exercise strong control over the disposition and price of output of most commodities. Moreover, the most important commodities, cotton and wheat, remain under rigid government quotas and state orders that levy a burdensome tax on the incomes of farms and their workers. The government subsidizes the prices of farm inputs in partial compensation for the low returns on output, but these subsidies have been declining. The bulk of the subsidies are the free distribution of water, subsidized credit, the free use of land, and cut-price electricity, agrochemical inputs, and fuels. These subsidies

further distort production incentives and do not compensate for the taxes on output. It is estimated that in 1997 the net impact of government pricing, procurement, subsidy, and credit policies on cotton and wheat alone constituted a transfer of 4 percent of GDP at the official exchange rate and 8 percent of GDP at the unofficial exchange rate. As a result of these policies, the terms of trade have shifted dramatically against agriculture, with the agricultural sector losing 60 percent of its purchasing power between 1990 and 1997 (ADB 1998a).

In each of the CTEs, significant agricultural reforms are still necessary to correct serious remaining policy and institutional inefficiencies and establish a base for long-term agricultural growth. Probably the most crucial reforms are the development of the legal framework for property rights, the establishment of private farms, and genuine privatization of state and collective farms. Remaining production quotas and state orders for agricultural output should be eliminated and replaced by market prices. Trade and macroeconomic reform to open the international trade regime and institute a market-based exchange rate would also benefit agriculture.

The ETEs have progressed much further than the CTEs in agricultural reform, but still face important issues. Although the long-term leasehold systems that currently prevail in these countries provide considerable security, fully defined property rights in land would provide better security and production incentives for agriculture. As with other developing countries in Asia, there remains a persistent tendency to tax agriculture through exchange-rate and trade policies. Agricultural growth would be further stimulated by the removal of these biases against agriculture. These macroeconomic and trade policy issues were discussed in more detail in Chapter VII.

STATE ENTERPRISE REFORM

One of the most important, and also the most difficult, reforms in the move from centrally planned to market economies

is the reform of state-owned enterprises (SOEs). Including the state and collective farms discussed above, these SOEs controlled virtually all agricultural production in the CTEs and maintain a heavy role in production today despite early transition reforms. In the ETEs, state enterprises have been relatively more dominant in the nonagricultural sector. In both the CTEs and ETEs, however, state enterprises controlled (and in many of the transition economies continue to control) a significant share of agricultural input and output marketing, agricultural processing, and international trade in agricultural commodities. In addition, the large implicit and explicit subsidies to industrial and service-sector SOEs exact a tax on the agricultural sector, in the same manner that biased trade and macroeconomic policies do (see Chapter VII). Moreover, the inefficiency of the SOEs in agriculture and other sectors has been a significant drag on the process of agricultural transformation.

At the onset of the transition process, the state sector was highly inefficient because of the legacy of central planning. The central plan allocated output targets, inputs, and investment to the SOEs, which were operated to meet physical production targets and protected from competitive pressures. Financial performance was irrelevant because profits and losses were redistributed among firms. As a result of these incentives, SOEs were inefficient and unproductive; massive subsidies to cover operating losses were a key source of inflationary pressure. The transformation of these enterprises is therefore essential to creating an efficient market economy. The strategies followed in the ETEs have again been quite different from those in the CTEs. While the strategy has not been identical in the PRC, Viet Nam, and Lao PDR, the broad plan of these countries has been to corporatize the state-enterprise sector, attempting to introduce financial discipline and market incentives to the SOEs while encouraging the development of a parallel private sector, and then downsizing the state-enterprise sector. The PRC's experience illustrates both the successes and the limitations of this approach.

Beginning in 1978, the PRC has pursued a dual-track transition that created parallel market and central-plan tracks

in both the price system and enterprise ownership. A relatively free market was introduced, while state supply was maintained at the lower plan price. Plan prices, and the proportion of the economy subject to plan prices, were gradually adjusted until prices and incentives converged. As a result, a nonstate sector of private and semiprivate enterprises, foreign joint ventures, and community-based rural enterprises has developed alongside the SOE sector (Parker, Tritt, and Woo 1997). The state-enterprise system itself has undergone significant reforms aimed at improving incentives to respond to market signals. Direct local-government control over SOEs has been reduced, but the local government often retains heavy influence through control over financing, allocation of workers, and appointment of workers. A variety of mechanisms has been tried to introduce market-type incentives to SOEs, but the predominant form has been the enterprise contract, which specifies profit targets and remittances to the government. The establishment, particularly in the coastal areas, of Special Economic Zones (SEZs), with far greater institutional autonomy, has further encouraged innovation and investment. Strong responses to the partial reforms in the SOEs, and to an even greater degree to the more comprehensive reform in the SEZs, have been key forces behind the rapid economic growth in the PRC during the economic reform period.

Despite the success of these reforms, significant problems remain in the state-enterprise sector that could dampen future growth in the PRC. The enterprise contracting system has failed to eliminate the negotiability of state-enterprise financial relations with the government, to harden taxes through clear stipulation of tax rates, or to make taxation uniform and transparent. As a result, soft budget constraints protect state enterprises from the market environment. For example, during the economic slowdown in 1989–90, state enterprises were able to pass most of their losses to the government budget and banking system, causing severe inflationary pressures.

A number of factors make comprehensive state-enterprise reform difficult. Profitability is not directly linked to enterprise constraints because of continued input and output price

distortions; the financial relationship between enterprises and the government remains distorted and subject to rent seeking on both sides. SOEs also perform a variety of social responsibilities including provision of housing, transport subsidies, and other social services. These responsibilities make SOEs uncompetitive with nonstate enterprises, creating the demand for further government subsidies. This complex set of relationships must be reformed before budget constraints for state enterprises can be hardened (Rana 1995b). The evolution of the PRC economy nevertheless continues to exert pressure for further reform of state enterprises. The corporatization and management of enterprises through price signals generated by stock markets is becoming increasingly accepted, and more and more state enterprises are being sold to nonstate companies (Cao, Fan, and Woo 1997).

In Viet Nam, the reform and downsizing of the state-enterprise sector has been more rapid, beginning with radical reforms in 1989 that cut all government budget subsidies to SOEs and eliminated 5,000 firms, while exposing SOEs in some sectors to private-sector competition. These dramatic reforms boosted the output of SOEs and in just three years, revenues from these enterprises increased from 6 percent to 11 percent of GDP (World Bank 1996a). A second round of restructuring began in 1991, with the number of SOEs falling from around 12,000 to 6,600 by 1995 due to closures, consolidation, and sale of smaller enterprises. This reform and restructuring reduced the proportion of loss-making SOEs from two thirds to less than 10 percent (Green and Vokes 1997). Nevertheless, reform of the larger state enterprises has been slow, and the remaining SOEs still benefit from a range of protective and distortionary measures, such as exchange-rate controls and land policy, that hinder free entry and competition and bias state enterprises toward inefficient and capital-intensive production.

The Lao PDR also moved quickly, beginning in the late 1980s, to reform the state sector: most small and medium-scale enterprises were sold, leased, converted into joint ventures, or liquidated by 1994. The large SOEs have not been privatized, however, and contracting systems similar to the PRC model have had only mixed success (Green and Vokes 1997; Rana 1995a).

Progress and problems in reforming the state-enterprise sector in the CTEs in many ways mirror those in the reform of the large state and collective farms described above. Many small- and medium-scale SOEs have been privatized and others have been closed, but large-scale SOEs have in many cases survived essentially intact from the Soviet period. The Kyrgyz Republic has again moved most rapidly among the CTEs, privatizing more than 6,000 enterprises, mainly through cash and voucher auctions, thus significantly reducing the size of the state sector. By 1996, SOEs accounted for only 47 percent of industrial output (ADB 1997a). Government plans are for phased privatization of the remaining large SOEs that are particularly concentrated in the energy, telecommunications, transport, and mining sectors. In Kazakhstan, although a few large enterprises have been privatized since 1996, the remaining large-scale SOEs have neither been corporatized nor privatized and are a significant source of inefficiency and fiscal instability. Direct subsidies to loss-making Kazakh SOEs in 1996 accounted for 2–3 percent of GDP (ADB 1997b). Uzbekistan has basically completed the privatization of small state enterprises. The process of corporatization of medium- and large-sized enterprises has been much slower, however. By 1996, only 19 percent of medium-sized and 17 percent of large-sized companies had been partially privatized or incorporated (ADB 1997c).

Fundamental challenges remain for reform of the state enterprise sector in the CTEs. With little reform of remaining SOEs, corporate governance structure is weak due to the lack of an appropriate legal and regulatory framework, financial discipline, or incentive structures. The lack of financial discipline and the poor incentive structure have perpetuated the inefficient managerial and operational practices of the centrally planned system. In order to strengthen market-based incentives, continued progress toward privatization should be accompanied by adoption of effective corporate structures, removal of government subsidies and enforcement of hard budget constraints, introduction of transparent enterprise accounts, and development of bankruptcy implementation procedures (ADB 1997d). Finally, it is essential also to open the economy

to global markets in order to improve SOE access to technology, increase competitive pressures, and upgrade labor, management, and capital.

TRADE, MACROECONOMIC, AND STABILIZATION POLICIES

The combination of trade liberalization, real currency devaluation to market-based exchange rates, and macroeconomic restraint and stability have been essential to successful economic transition and economic and agricultural growth. Transition economies that have aggressively pursued trade liberalization have experienced dramatic growth—in exports and imports—that has been an important contributor to output growth. Trade expansion has depended primarily on the output response to the liberalization of trade regimes that gave domestic producers the incentive to compete in global markets and to gain access to new technology (De Menil 1997). Macroeconomic stability is particularly difficult to achieve in transition economies, as it involves sharp cuts in subsidies and other public spending on the one hand and the adoption of both creative and judicious ways to increase state revenues to finance budget deficits on the other. Successful fiscal and exchange-rate stabilization is important, however, not only to stimulate trade, but also to control inflation and to maintain incentives for investment. High inflation distorts relative price incentives and creates uncertainties that inhibit savings, investment, and growth.

The PRC and Viet Nam have pursued somewhat contrasting but relatively successful reforms of trade, exchange-rate, and stabilization policies. The PRC followed a gradual, but nevertheless far-reaching, approach to trade and exchange-rate policy reform. Beginning in 1978, quantitative trade controls by planning authorities were gradually relaxed, the central government's monopoly of foreign trade was eliminated, foreign-exchange controls were loosened, and local authorities

granted broad exemptions from central authority and control. By 1988, only 45 percent of exports and 40 percent of imports were under central control. The number of foreign national trading companies expanded from about a dozen in 1979 to more than 5,000 in 1990. Beginning in 1979, export companies were allowed to retain a share of foreign-exchange earnings and retention rights were expanded from 15–40 percent in 1980 to 70 percent in 1988. Moreover, in 1985, foreign-exchange swap centers increased the flexibility in foreign-exchange trading.

Perhaps the most important boost to trade, however, was the granting of broad local exemptions from central regulation by local governments, primarily through the SEZs and Open Economic Zones. The extent and influence of these exemptions is shown by the difference between statutory import duties and effective tariff rates. In 1992, the average rate of import duty was 42.8 percent, while tariff revenue as a percentage of actual imports was only 5.6 percent (De Menil 1997).

The PRC has also been generally successful with a gradual approach to stabilization policies, but periodic inflationary periods indicate continued structural imbalances. The PRC has enforced hard budget constraints on the agriculture sector and on the rapidly growing private sector in industry and has maintained positive real interest rates for these sectors of the economy. However, as noted with respect to state enterprises, soft budget constraints and subsidized credit to the SOEs have encouraged excess investment; SOE deficits caused severe inflationary episodes in 1986–87 and 1994–95. Implicit subsidies to SOEs through negative real interest rates and noncollection of bad debts have been estimated at 3 to 4 percent of GDP; bad enterprise debts may account for 20 percent of bank portfolios. The government has contained these inflationary periods through direct administrative controls, including ceilings on bank lending, direct prohibitions on investment, and price regulations. But administrative controls will become less effective as economic reforms continue. Continued successful stabilization will require further management reform and hardening of budget constraints on the SOEs and the banking sector (World Bank 1996a).

The reforms in Viet Nam were described above, but it is worth reiterating here that a large share of the steps to liberalize and stabilize the economy were undertaken in a very short span of time, combining aspects of an Eastern European “big bang” reform with the gradualist PRC approach. Faced with continued poor economic performance and hyperinflation, the government undertook radical reforms to liberalize and stabilize the economy in the space of six months, at the beginning of 1989. Price controls, state procurement, and rationing were eliminated for most goods. The official exchange rate was sharply decreased and parallel exchange markets were unified. Devaluation was accompanied by sharp increases in real interest rates, which became positive, and fiscal deficits and the growth of domestic credit were cut dramatically (De Menil 1997). State-enterprise reform was also initiated at this time, but this reform has continued on a more gradual path. As in the PRC, accelerated reform in this sector would help reduce inflationary pressures.

The process of trade liberalization and fiscal stabilization in the CTEs was initiated during a period of massive economic decline, collapse of trade, and hyperinflation. Despite these severe conditions, the Kyrgyz Republic has followed a policy of sustained stabilization and liberalization since 1994. Inflation was reduced from over 1,000 percent in 1992 to about 20 percent in 1997. This was accomplished by dramatic cuts in budget deficits (from 14 percent of GDP in 1995 to 7 percent of GDP in 1996), reductions in money-supply growth, and liberalization of deposit and interest rates. The government has established a foreign-exchange market with a floating exchange rate and a fully liberalized exchange regime with no restrictions on capital or current accounts. Nontariff trade barriers have been removed and all export taxes have been eliminated (World Bank 1998a).

Kazakhstan has also brought inflation down from nearly 2,000 percent per year to below 40 percent in 1996 and 11 percent in 1997, by introducing tighter credit and monetary policies and by reducing the budget deficit to 2–3 percent in 1996 and 1997. Exchange-rate stabilization and structural reform of the trade regime have stimulated growth in exports (World Bank 1998b; ADB 1997b).

In Uzbekistan, trade liberalization (like agricultural and state enterprise reform) has been relatively slow and fitful. After the initial go-slow approach to market-oriented reforms following release from the Soviet system, fiscal and monetary stabilization and the acceleration of structural reform beginning in 1994 coincided with an improved economic situation. But in response to the twin economic shocks in 1996—poorer than expected cotton and wheat harvests and sharp declines in world prices of cotton and gold, Uzbekistan's primary exports—the government relaxed monetary and fiscal policy and tightened trade and foreign-exchange restrictions (World Bank 1998d; ADB 1997c). Although some fiscal tightening was resumed in 1997 in response to inflationary pressures caused by the relaxation of fiscal policy, the government remains cautious about the pace of trade liberalization and stabilization.

As can be seen from this brief summary, the pace of trade liberalization and economic stabilization has varied widely across the CTEs. A number of cross-country econometric analyses have been undertaken to seek to explain the performance of the CTEs, other former Soviet countries, and Eastern Europe since 1990. All of these countries experienced large output contraction after the break up of the CMEA and the collapse of the Soviet Union. The analyses indicate that the speed and comprehensiveness of liberalization and stabilization reforms in the CTEs are positively related to an earlier resumption of growth and to the rate of growth achieved when growth resumed (Fischer et al. 1995; Taube and Zettelmeyer 1998; Zettelmeyer 1998). These studies also address the "Uzbek growth puzzle"—the relatively strong performance of the Uzbekistan economy despite slow economic liberalization and stabilization reform. The results show that Uzbekistan's favorable performance did not occur because of the cautious approach to reform, but rather in spite of it. The variables which have driven Uzbekistan's relatively good performance—cotton exports, energy self-sufficiency, and low initial industrialization—have more than offset the detrimental effects of trade, macroeconomic and structural policies (Zettelmeyer 1998; Taube and Zettelmeyer 1998).

PROVISION OF SOCIAL PROTECTION DURING TRANSITION

An important challenge in economic transition is to protect the poor during the reform process. Even a successful transition from a centrally planned economy to a market-oriented economy will increase income inequality and leave some people behind in the growth process. Greater disparity of wages, income, and wealth is to a certain extent inevitable during the transition, because allowing wages to be determined by the market, which is necessary to create incentives for productivity, will also increase inequality. Increased inequality can increase poverty, but if economic growth is sufficient and social safety nets are adequately developed, poverty can be reduced despite increasing inequality. The rapid economic growth in the ETEs due to economic reform has in fact dramatically reduced poverty, but significant pockets of poverty nevertheless remain (see Chapter II). The problem in the CTEs has been far more serious because transition was begun in the midst of a severe contraction of economic output and the withdrawal of massive funding from the Soviet Union to support social services.

At the outset of the transition process, the ETEs were characterized by relatively low (or regionally varying) social indicators, widespread poverty, and lower levels of income and state social-service provision compared to the CTEs (Graham 1997). However, lack of labor mobility and the cooperative work structure together ensured some level of community solidarity. The reform process in the ETEs coincided with real economic growth coupled with labor absorption by the rapidly growing economy, resulting in an absolutely reduced incidence of poverty. Labor absorption was facilitated by the relatively smaller size of the state-owned industrial sector, which did not require large layoffs, at least at the onset of the reform process. Thus, increases in inequality have been given less attention. On the other hand, in Mongolia, an economy that formerly received large transfers from the Soviet Union, inequality and poverty have become more pronounced (Green and Vokes 1997; Graham 1997).

The problems of increasing inequality and large pockets of rural poverty have yet to be addressed in a comprehensive manner. In the case of Viet Nam, for example, Van de Walle (1998) argues that the development of a reliable, effective system of redistributive transfers and safety nets will be crucial if Viet Nam is to make a successful transition to a market economy. The author concludes that Viet Nam's poverty-reduction program and safety net could improve through

- strengthened institutional structures and policies, including national norms for a consistent identification of the poor across regions;
- survey and other instruments for measuring and monitoring local needs and program performance;
- integration and coordination among subprograms;
- welfare-maximizing redistribution of resources across space; and
- increased resources and attention to help households and communities deal with covariant risk.

Under the Soviet system, the CTEs were characterized by wide-ranging social-protection systems. Programs included subsidized housing, electricity, and water; relatively high nonwage benefits; and other social services, such as health and education provided at a minimal fee or for free. As a result, social indicators such as life expectancy and literacy were relatively high compared to the per capita incomes in these countries of between US\$2,500 and US\$4,000. Following the disintegration of the Soviet Union, however, these services were not fiscally sustainable: living standards eroded severely in some parts of the CTEs and both poverty and inequality increased substantially. Thus, unlike the ETEs, the CTEs experienced sharp drops in social indicators in the first years of the transition process (ADB 1997d).

Grootaert and Braithwaite (1998) find that social protection systems in the former Soviet Union and Eastern Europe have been inadequate to meet the challenges of transition, being both costly and poorly targeted. The authors identify the working

poor, especially workers with little education or outdated skills, as the largest group affected by transitional poverty. The newly unemployed, who live from social transfers or other nonearned income, are most affected. Poverty rates in the transition period are higher in the former Soviet Union than in Eastern Europe, due to the existence of some form of social safety net in the latter. In the short to medium term, creating employment in the informal sector may generate a larger payoff than creating jobs in the formal (still to be privatized) sector, so programs to help (prospective) entrepreneurs should take center stage in poverty-alleviation programs.

Graham (1997) identified female-headed households and the urban unemployed in Mongolia, single and elderly pensioners and the very poor in Viet Nam, and the aging rural population in the PRC as groups that need to be targeted by safety nets. The creation of viable institutions to provide basic social services and insurance to a large part of the population will also be crucial in confronting poverty. In the CTEs, the universal social support system of the Soviet era is not viable, so targeted assistance programs have to receive much larger attention and will be crucial to the successful implementation of the reform process.

Whereas gradual reform might lead eventually to comprehensive social reforms, radical approaches can support a better redirection of resources to the poorest, because they would allow decreased opportunities for opposition from more vocal groups, for example. Targeted assistance programs as well as general social reforms must be implemented as both an integral and complementary part of the macroeconomic reform program, with comprehensive stakeholder participation in the process, so that successive governments have a stake in their continued implementation and beneficiaries perceive the transition process as socially equitable and thus support it.

ENVIRONMENTAL PROTECTION DURING TRANSITION

The centrally planned countries of East and Central Asia put little emphasis on the environmental impacts of economic growth. The Aral Sea disaster stands out as an example of the results of the pursuit of output growth without taking into account the medium- and long-term environmental consequences. Thus, at the onset of the reform process, all the transition countries were burdened with a legacy of environmentally damaging mismanagement reaching over all economic sectors; these problems were especially severe in the CTEs. The transition period offers a significant opportunity to improve environmental quality in the CTEs. At the beginning of the reform period, the collapse of the Soviet Union and the resulting industrial contraction effectively cut industrial pollution rates in the CTEs. There are at least early indications that the recovery in industrial output will not be accompanied by equivalent increases in pollution because of more effective environmental regulation and enforcement (World Bank 1996a).

In contrast, rapid economic growth in the ETEs contributed to increased pollution rates and other environmental degradation through both an inefficient and highly polluting state-owned sector and the newly developed, strongly growing private sector (Esty 1997). Continued growth in agricultural production in the ETEs raises environmental questions related both to the intensification of existing cropland and extensification that requires continued land clearing in increasingly sensitive areas. Forest degradation is considered one of the largest environmental problems as the result of arable land expansion, fuelwood consumption, commercial logging, shifting cultivation and fire damage. Other environmental damage includes water and air pollution and the elimination of wetland ecosystems (Marcoux 1996). These problems are not confined to the transition economies and will be addressed in more detail in Chapter X, which discusses future resource and environmental challenges for agricultural growth in Asia.

However, transition periods do provide an excellent opportunity for market reforms and for the establishment of sound rules of environmental protection for the transforming economies. First, changes in relative prices should promote more efficient use of energy and natural resources. Privatization and reduced state interference will encourage management to improve the operating performance of existing plants, while replacing old equipment with cleaner production technologies. Well-designed environmental standards, regulations, and enforcement procedures can contribute to this process. A clear separation of enterprise ownership and management from environmental regulation should encourage realistic environmental standards (World Bank 1996a). Foreign direct investment and international cooperation—such as the Aral Sea water and environmental management programs—should assist in improved environmental quality.

LESSONS AND FUTURE DIRECTIONS FOR REFORM

The debate over the relative merits of rapid (“big bang”) reform and gradual reform is almost beside the point—both approaches have been successful when appropriate policy reforms have been successfully implemented. However, the forces triggering the transition—internal or exogenous—and the initial conditions at the onset of the crisis are important determinants of the early output response upon initiation of the transition process, regardless of the speed of reform. In the medium and longer term, policies that are conducive to investment and openness are the primary determinant of economic and agricultural growth.

The emerging evidence from economic reform in Central Asia shows that more rapid and comprehensive reform can be conducive to a quicker economic turnaround and faster growth (albeit perhaps at a higher social cost). The PRC, on the other hand, has had great success with a gradual approach; success

was arguably best in the agricultural sector, however, where reform was fastest, and much less so in the state-enterprise sector, where reform has been slowest. Viet Nam undertook highly successful and relatively rapid economic liberalization and stabilization reforms in 1989, but has encountered difficulties in the slow-reforming state-enterprise sector. Gradual reform typically allows for a more comprehensive reform process, but a lack of urgency for thorough renovation can bring about inappropriate and incomplete reforms or lead to a stop-and-go process, such as the PRC experienced during its reform process. Nevertheless, political and social stability during the transition process may be as important to success as economic stability and may dictate a more gradual approach to reform than is optimal from the point of view of efficiency.

The agricultural sector has played a pivotal role in determining the early pace of reform and constitutes an important backbone for the acceleration of economic growth in transition economies. The rigid, transfer-dependent, centralized and collectivized agriculture structure in the CTEs fell apart with the collapse of the Soviet Union and paralyzed growth prospects in the initial reform years, despite the adoption of market reforms. The central government's grip on agriculture was much less pronounced in the ETEs; in particular the higher prevalence of smallholder agriculture contributed to a smoother transition in the agriculture sector and thus in the overall economy. The existence of surplus labor that could be released to the industrial sector was also favorable for economic growth during the transition process. Moreover, rapid growth in the agriculture sector helped cushion the adverse impacts of initial dislocations arising from reform in the nonagricultural sectors, providing for a degree of income stability at the onset of the reform process.

Finally, the agriculture sector provides positive stimuli to other economic sectors through

- its linkages with related industries, like food-processing;
- the provision of social (and sometimes environmental) stability during the transition process, as a large

- segment of the population tends to be employed in the agriculture sector at the onset of the reform process;
- the provision of food security and savings in foreign exchange on food imports; and
 - the creation of foreign exchange through the export of cash crops.

Because of the crucial role of agriculture in the transition process, increased attention must be paid to the acceleration of market-oriented reforms in the agriculture sector of the CTEs. Required reform measures include a comprehensive land reform and restructuring of both state and collective farms and removal of state intervention in and liberalization of input and output markets, as well as the rebuilding of banking and financial services for agriculture.

A “dual system” with state enterprises coexisting with the private sector (as in the PRC) can provide initial stability and a degree of social protection while market institutions develop. State enterprises that provide broad welfare benefits and social services to the vulnerable and needy groups of society or that provide employment to a large number of people might have to be protected at the outset of the transition process as a safety-net component. In addition, during the early stages of reform, dismantling of state enterprises is politically difficult and potentially harmful in the absence of market-oriented institutions and human capital. It may be more appropriate at such an early stage to focus on the corporatization of state enterprises, while simultaneously promoting the growth of the nonstate private sector and the integration of the economy into the global economy. The dual-track transition in the PRC is one example where private enterprises are gradually overtaking state-subsidized companies in scale and scope. However, state enterprises that exist under “decentralized socialism,” that is, with marketed products but centralized property rights, can lead to increased opportunities for corruption, high inefficiencies, and an incentive structure that together maximize monetary transfers from the principal to the agents (Parker, Tritt, and Woo 1997). Therefore, in the medium to longer term, the

continued existence of state enterprises with soft budget constraints, special foreign-exchange rights, and other preferences severely undermines the development of competitive markets. It is therefore essential in both ETEs and CTEs to quicken the pace of reform of state enterprises, moving beyond the improvement of corporate governance to true privatization of the state sector.

The existence or early creation of an economic, legal, and social enabling environment that is responsive to policy reforms and conducive to openness and investments is essential for all types of reform measures undertaken during the transition process. Macroeconomic stabilization and trade liberalization are important components of the policy reform process. Openness to global markets and international trade allows an economy to develop according to its comparative advantage, to catch up technologically, and to adapt its labor force and capital stock continually to changing factor endowments (Thomas and Wang 1997). Trade liberalization directly boosts export (and import) growth, instills competitive, market-oriented behavior in the transition economies, and increases the living standards of the people. Far-reaching trade liberalization has been a key component of the success of the East Asian transition economies; more rapid and comprehensive reform of trade policies would significantly benefit the Central Asian transition economies.