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### Central Asia's Transition after Fifteen Years: Growth and Policy Choices

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# **Central Asia's Transition After Fifteen Years: Growth and Policy Choices**

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Central Asia's Transition After Fifteen Years:  
Growth and Policy Choices

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**Abstract:**

This paper presents a coherent and systematic analysis of the collapse and subsequent revival of the Central Asian Republics (CARs) since 1990. The focus is on the pattern of growth and structural change during the cycle of decline and subsequent revival in the CARs which have been inadequately analyzed in the literature on transition. The paper relates economic performance to initial conditions, country characteristics and policies. Within this framework, it proposes a simple typology of policies (including a new Type III set of policies on regional cooperation and industrial competitiveness) and relates them to the cycle of decline and revival in the CARs. It goes on to examine medium-term prospects and policy needs for the CARs.

**Key Words:** growth, economic reform, regional cooperation, industrial competitiveness, Central Asia, transitional economies.

## 1. Introduction

The decline of socialist countries after dissolution of the former Soviet Union has been well documented in the literature.<sup>1</sup> The literature is extensive and good surveys are provided by Fischer and Sahay (2000), Campos and Coricelli (2002) and Svejnar (2002). Much of the literature has focused on the transition in Central and Eastern Europe and the Baltic States, South Eastern Europe and Russia within the Commonwealth of Independent States. However, an important group of countries, the Central Asian Republics (CARs) have traditionally received less interest.<sup>2</sup> Located strategically between Europe and Asia, with large endowments of minerals and other commodities, they have become a growing focus of international attention. They also have a rich and varied experience of policy reform over the last fifteen years under difficult land-locked geographical conditions.

With the benefit of hindsight, the length and depth of the transition recession in former Soviet economies was unexpected by early observers.<sup>3</sup> Initial estimates were that the power of market forces and the efficiency gains of competition and better allocation of resources would more than compensate for adjustments to be made in moving from centralized planning of the Soviet era (see, for example, Lipton and Sachs, 1990; Balcerowitz, 1994; Sachs 1996). These observers suggested that a big bang (or shock therapy) approach would rapidly bring about the transition to market economy and that economic prosperity would be higher than during Soviet times.

This optimism was misplaced and most countries went into a period of sharp contraction in the early 1990s. A series of stylized facts has been proposed to explain this decline including tight credit policies, a collapse in credit as subsidies to firms were reduced, an increase in real interest

rates, disorganization as the economic relations of the old central planning had to be replaced by less specialized firms and suppliers, producers and consumers all had to develop new habits, labor market adjustments and the dissolution of the Council of Mutual Economic Assistance which governed trade among the members of the Soviet bloc (see Svejnar, 2002, Campos and Coricelli, 2002, Djankov and Murrell, 2002).

Along with the development of these stylized facts, there was extensive discussion of the merits of the big bang versus gradual reforms. Within this debate, various kinds of policy reforms that were required to bring about a more rapid and efficient transition have been discussed and related to underlying economic performance. There is some consensus that a more complex approach than simple big bang reforms is needed to ensure an effective transition to a market economy. Observers have developed two categories of policies to reflect this complexity. Type I policies include standard big bang instruments such as macro, price and exchange rate reforms. Type II policies include regulatory, legal and other institutional reforms. Additional policy instruments may also required reflect the special land-locked circumstances of the CARs.

The aim of this paper is to present a coherent and systematic analysis of the collapse and subsequent revival of the Central Asian Republics during the period 1990 to the present. Six economies are included: Azerbaijan, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. The focus is on the pattern of economic growth and the associated transformations in economic structure during the cycle of decline and subsequent revival. This revival and its drivers have been inadequately analyzed in the literature on transition in the CARs. This paper relates economic performance to initial conditions, country characteristics and

economic policies. Within this framework, the paper goes on to propose a simple typology of policies (including a new Type III set of policies) and relate them to the cycle of decline and revival in the CARs. It goes on to examine medium term economic prospects and policy needs.

## **2. Typology of Policies**

The literature on economic adjustment in developing and transition economies suggests that the pattern of long-run growth and structural change is a function of many factors. These include initial conditions, country size, geographical location, investment, human capital, technological progress and above all, economic policies.<sup>4</sup> Reflecting the complexity of transition experiences, as mentioned above, analysts typically distinguish between Type I and Type II policies (World Bank, 2002; Svejnar, 2002). Table 1 provides a policy matrix with examples of each of these.

Big bang policies in the Type I category of standard macro, price and exchange rate reforms are contained in stabilization and structural adjustment programs of international financial institutions (Lipton and Sachs, 1990; Balcerowitz, 1994; Sachs 1996). Included under this heading are macro stabilization and inflation policies focusing on monetary and fiscal policies, trade reforms as well as policies to dismantle the command and control institutions of the Soviet system. This set of policies also includes microeconomic reforms to address price distortions which constrain the efficient functioning of markets. Microeconomic policies emphasized more efficient allocation of resources, removing subsidies and restoring prices determined by market force, breaking up or rationalizing state owned enterprises and developing markets to allocate production factors to their most efficient use. Reforms of state-owned banks and establishment of social safety nets to deal with unemployment created by the reallocation of resources during the



transition are sometimes added to this package of measures. Type I reforms are sometimes also referred to as first generation reforms.

Type II category reforms primarily deal with the development of a legal and regulatory framework for the public and private sectors. Often focusing on the productive sectors (industry, agriculture and the services), the details of these reforms may vary but include revision of laws affecting the private sector, reduction in bureaucratic procedures influencing small business start-up, transparency in the operation of public enterprises, privatization and development of regulations governing institutions. These reforms are commonly referred to as second-generation reforms implying that they follow Type I policies.

Type III policies involve two additional sets of initiatives that have particular pertinence to the special land-locked circumstances of the CARs: regional cooperation and industrial competitiveness policies. Being land-locked and with small domestic markets, the CARs are isolated from international markets, unable to reap economies of scale in production, face high transport and transit costs, and are relatively unattractive to foreign direct investment (except in oil and gas). In this vein, open regionalism initiatives in key areas – notably, transport, trade facilitation and energy – can link the CARs with each other and international markets, reduce transport and transit costs and make the region more attractive to foreign investment (UNDP, 2005). Examples of regional cooperation initiatives in the CARs would include integration of road, rail and air transport systems; harmonization of border posts and customs procedures and the development of an efficient regional energy market. Monetary cooperation could also be added as another regional initiative.

To be effective, regional cooperation initiatives in the CARs would need to be underpinned by policies to improve industrial competitiveness. The purpose of such policies is to support the difficult firm-specific processes involved in building technological capabilities for export markets. Experience of more advanced developing and transition economies indicates that capability building at firm-level requires conscious investments in information search, engineering, training and even research and development to put imported technologies to productive use (Lall, 1992; Nelson and Pack, 1999). Missing factor markets and weak institutional support (for technology, skills, finance and export marketing) constrain firm-level capability building. Market and institutional imperfections to competitiveness in the CARs can be addressed by market-friendly measures including increasing technology imports (e.g. foreign investment, technology licensing and consultants); emphasizing adoption of international practices in standards and quality management in small and medium enterprises; upgrading technology institutions; improving access to industrial finance for technology development; and strengthening production linkages between small and large firms involved in supply chains and industrial clusters (Lall and Teubal, 1998; Wignaraja, 2003).

Introduction and implementation of any one of type I, II or III policies alone would result in partial economic success during the transition. Taken together they present an inter-locking set of complementary policies which is much more likely to succeed. We will return to the three types of policies in the remainder of the paper. The introduction and speed of implementation of these different sets of policies has a direct bearing on the collapse of the CARs in the first half of the 1990s as well as their subsequent revival.

**INSERT TABLE 1 ABOUT HERE**

### **3. Collapse**

All of the CARs suffered severe reductions in real output following the break up of the Soviet Union (see Figure 1). Between 1990 and 1996 (the trough for four of the CARs, whereas the trough for the others was 1995) real output fell by between 40 and 60 percent in all CARs with the exception of Uzbekistan, where real output fell less than 20 percent.<sup>5</sup> Aside from the general reasons for the collapse that were common to all the transition<sup>6</sup> economies, there are several features particular to the CARs some of which are related to their previous status as republics of the former Soviet Union while others relate to geography and resource endowment.

First, in the Soviet period as part of the integrated production system the CARs were required to supply raw materials, energy and intermediate inputs to Russia, which in turn supplied finished manufactured goods to the CARs and other regions (IMF and Others, 1991). This constrained the flexibility of the industrial sector during transition. To compound matters, state-owned enterprises had previously been under Russian management and there were few qualified local managers able to take over during the transition. Private manufacturing was prohibited during Soviet times and there was no private sector apart from informal trade. Furthermore trade links with the rest of the world occurred directly through Moscow or through its state owned enterprises. As a result there were virtually no opportunities to develop marketing relationships with foreign buyers or investors during the transition period.

Second, all of the CARs were dependent of subsidies to industries and when those were suspended this put additional pressure on budgets. In addition, there was a breakdown in supply of raw materials and other inputs during the early stages of transition which further exacerbate the profitability and ongoing operations of a variety of state owned enterprises as well as newly privatized industries. Maintaining social safety nets was made more difficult as budgets were stretched and as a result poverty levels increased rapidly.

**INSERT FIGURE 1 ABOUT HERE**

Third, all of the CARs are landlocked. Sea access for traded goods is through Russia or Iran. Uzbekistan is double landlocked – meaning goods have to go through two sets of border to get to the sea. There are also other geographic barriers including harsh winters and high mountains in Tajikistan and semi arid conditions in much of the region. Climate and geography have resulted in high costs for transport, communications, energy, and transit as well as long delivery times to international markets (see Raballand, Kunth and Auty, 2005; UNDP, 2005).<sup>7</sup> In addition, remoteness meant that industries had limited access to information and technology through contacts with overseas buyers and markets.

Finally, the CARS are richly endowed with commodities, including crude oil, natural gas, cotton, gold and metals such as copper, aluminum and iron. Three CARS (Azerbaijan, Kazakhstan and Turkmenistan) export natural gas and oil while Kyrgyz Republic and Uzbekistan export gold. These commodity exports account for anywhere from 35 percent to 80 percent of total exports, depending on the country (see Freinkman, Polyakov and Revenco, 2004). These commodities

also contribute heavily to fiscal revenues and provide resources for investment in economic development projects. In the Soviet period these resources were distributed and marketed through Moscow (see Sabonis-Helf, 2004). In the early years of the transition, these transit links were severely disrupted. Furthermore, Soviet agencies such as Gazprom, (which market oil and natural gas products) took advantage of their monopoly position in transit to offer lower than market prices. The outcome was that commodity exports and associated government revenue fell in the CARs.

Taking these factors into account and noting that the policy reaction to the transition different from country to country, the country-level pattern of the collapse can be briefly summarized as follows.<sup>8</sup>

Kazakhstan is the largest country geographically (2.7 million square kilometers - as big as India) and has a wealth of natural resources. It now produces over a billion barrels of oil a year almost as much as Indonesia (British Petroleum, 2005). There the collapse in output was primarily a result of the interruption of oil and natural gas production and exports, loss of subsidies from the Soviet Union and out migration of skilled Russian technicians, scientists and managers. The beginnings of a manufacturing sector related to minerals production were also inhibited by the lack of revenue, weak domestic investment and failure to attract foreign direct investment (FDI). The poor fiscal performance meant that the government was unable to maintain infrastructure spending and as a result public investment and the provision of social services suffered.

The other two oil and natural gas producing CARs, Azerbaijan and Turkmenistan suffered similar disruptions to that experienced by Kazakhstan. However, they are smaller economies and more dependent on Soviet markets and subsidies. As a result, the disruptions in supply of oil and natural gas were somewhat more serious than in the case of Kazakhstan (see Figure 1). Furthermore, Azerbaijan was adversely affected by the conflict with Armenia over the disputed Nagorno-Karabakh region which erupted around 1988 and continued until a cease-fire in 1994. This brutal conflict claimed around 30,000 lives, displaced about half a million Azeri refugees from Armenia to Azerbaijan and resulted in widespread damage to physical infrastructure in both countries.

While Uzbekistan exports gold, natural gas and oil, it has also relied more on agricultural production than other CARs. Furthermore, population densities were higher than the rest of the region and the overall population was around 25 million, close to 40 percent of the total population of the CARs. Emphasizing import substitution and state-ownership rather than export promotion and the private sector, Uzbekistan adopted a cautious approach to economic reform. As a result, although there were disruptions in gold, oil and natural gas marketing, Uzbekistan suffered the smallest decline in production and income among the CARs. Furthermore, the country benefited from buoyant world market prices for cotton, its main export. In addition, some reforms took place in agriculture as collective farms were gradually converted to private use. However, productivity gains were small and recovery to pre-transition levels of income in this sector has been slow.

With limited natural resources and small domestic markets, Tajikistan and Kyrgyz Republic were even more closely tied to Moscow than the other CARs through supply chains in manufacturing and through gold mining in the Kyrgyz Republic (see IMF and Others, 1991; Zhukov, 2000). As a result, the collapse in these two CARs followed closely the decline in the Russian economy (see Figure 1). Nevertheless, Tajikistan fell much further and recovered more slowly than any of the other CARs. A partial explanation for this more profound economic collapse in Tajikistan lies in the disruptions caused by the civil war which erupted shortly after independence in 1991 and lasted until 1997. World Bank estimates suggest that the war period caused widespread physical damage in Tajikistan amounting to US\$7 billion and 50,000 lives (World Bank 2005). Furthermore, Tajikistan had weaker initial conditions (e.g. higher levels of poverty, lower levels of education and poorer quality infrastructure) than other CARs which contributed to poor economic performance following the transition.

Aside from the close connection of minerals production with the sale and marketing through the Soviet Union, there were other reasons for the poor performance of the CARs in the early 1990s. Generally, enterprise restructuring in the CARs was not as successful as it was in other transition economies in Eastern Europe (for example see the literature cited in Djankov and Murrell, 2002). Privatization did not generally have a positive effect on output and productivity. Furthermore, owners were not as effective as they were in Eastern Europe, in part because ownership was often transferred to workers who were not efficient managers. Lack of Type II policies relating to legal framework and transparency of operations probably contributed to poor performance.

In addition, the lack of alternative markets aside from Russia played an important role in the continuation of the collapse beyond a year or two. It took time to build up relations with foreign firms outside of Russia and to convince them to undertake foreign investment to build up capacity in natural resources. Furthermore, transport bottlenecks and transfer taxes imposed by Russia and within the CARs themselves reduced incentives for both domestic and foreign investors. Technical bottlenecks also arose because many of the Russian technicians returned home.

Four of the CARs (Azerbaijan, Kazakhstan, Kyrgyz Republic and Tajikistan) attempted to implement economic reform programs in the 1990s which included Type I and Type II policies. The timing of these programs, coverage, speed of reform and implementation success varied between them. There is general agreement that the effectiveness of Type I and Type II policies during the collapse were compromised by the size of the adjustments required, the extent of disruptions in production and trade linkages, the lack of a private sector, inefficiency and technological obsolescence of state-owned enterprises, the virtual absence of markets and regulatory institutions and widespread rent-seeking behavior (for recent studies see Trushin and Trushin, 2000 and 2002; Zhukov, 2002; Pomfret, 2003a). In contrast with the four reform-minded CARs, Uzbekistan and Turkmenistan maintained largely unchanged Soviet inspired economic policies during 1990-1996 (Wall, 2003; Sabonis-Helf, 2004).

## **4. Revival**

### **Economic Growth**



To begin the analysis of revival we can revisit the pattern of economic growth during the transition summarized in Figure 1. There are some interesting comparisons. First the CARs experience is very similar to that of Russia. In the early days some observers called it an L shaped pattern – decline and then flat performance for several years (Boeri and Terrell, 2002). However, if we look at the entire 15 year period it is much more U shaped with the bottom of the trough occurring in 1995 or 1996 for most CARs and also Russia (although the Russian financial crisis caused another decline in 1998). Second, Turkmenistan and Uzbekistan are exceptions in the sense that Turkmenistan growth accelerated quite dramatically from 1997 while Uzbekistan had a much milder decline. Uzbekistan achieved full output recovery (i.e. to 1990 levels of real GDP) in 2001, Turkmenistan in 2002 and Kazakhstan in 2004. In 2004, Azerbaijan's real GDP was 88.5% of its 1990 level, Kyrgyz Republic's was 80.4% and Tajikistan was 55.8%.

The best performers in Central and Eastern Europe and the Baltic States by contrast, had a very mild downturn. By 1993 or 1994 they had recovered to pre-crisis levels of GDP as a result of a higher initial level of development, inflows of FDI, proximity to Western European markets, implementation of appropriate stabilization policies and early policy reforms (see World Bank, 2002; EBRD, 2005; Simoneti *et al*, 2005). Similarly, the revival in the CARs can be reviewed from several different perspectives.

There are five basic reasons for the CARs revival – (a) higher international commodity prices and its impact on investment, government budgets, income and consumption; (b) acceleration in FDI inflows particularly into the oil and gas sector and in manufacturing to a less extent; (c)

better macroeconomic management; (d) an up turn in agriculture fueled by good weather, high world prices and some agricultural reforms; and (e) improved political stability.<sup>9</sup>

### ***Commodity Prices***

Commodity prices on world markets accelerated in the early part of the decade, particularly in the past three years in response to rising demand and supply bottlenecks (see Table 2). However, Commodity prices were firm even in the late 1990s (British Petroleum (2005). Oil and natural gas were the headline products with oil prices per barrel rising from \$28.8 to \$53.0 between 2003 and 2005. Prices for cotton, gold and other minerals were also strong. Export earnings from these commodities and the revenue that flowed into the government coffer in the CARs and facilitated their ability to address social sector issues, develop and improve infrastructure and increase the economic efficiency of the economy (see Makhmutova, 2005).

**INSERT TABLE 2 ABOUT HERE**

### ***FDI Inflows***

Annual FDI inflows in the oil and gas exporting CARs doubled to \$2.3 billion in Kazakhstan during 1997-2004, \$917.5 in Azerbaijan and \$156.8 million in Turkmenistan (see Table 3). Levels of FDI in Kazakhstan and Azerbaijan impressively approached those in Central and Eastern Europe and the Baltic States (see Simoneti *et al*, 2005). The oil and gas and mining sectors received most FDI inflows but the nascent manufacturing sector also benefited. Natural

resource seeking FDI was attracted to the region by the substantial deposits along with high international prices; favorable corporation tax rates for foreign investors; a strengthening of supply lines to export; improvements in the energy infrastructure; and low cost technical manpower (Moldasheva, 2002, World Bank, 2003; Sabonis-Helf, 2004). Better macroeconomic stabilization and implementation of economic reform also played a major role in attracting FDI (see below). FDI brought not only capital but access to the ownership advantages of multinationals (e.g. market access, new technology and management skills) which are vital for efficient exploitation and exports. Other CARs also saw an increase in FDI in the late-1990s but overall levels were lower than the oil and gas exporters. This is due to location of oil and gas deposits, policy uncertainty, lack of transparent investment procedures, inadequate transport linkages with major investor markets and under-developed market institutions (Wall, 2003; Mogilevsky, 2004; World Bank 2004).

**INSERT TABLE 3 ABOUT HERE**

***Better Macroeconomic Management***

Macroeconomic stability, proxied by inflation, has improved. Inflation rates have fallen significantly throughout the region over the past few years indicating improved macroeconomic management. Average inflation for the CARs as a group declined from 20.4% to 6.9% between 1997–2001 and 2002–2004 (see Table 4). Greater price stability was partly the result of greater fiscal and monetary discipline as well as greater stability in the exchange rate (IMF, 2005; Hausmann and Others, 2005).

Economic reforms were also implemented, albeit at different levels of intensity, in the region. According to EBRD (2005), significant progress towards a market economy had been achieved by 2005 through economic reform in Kyrgyz Republic and, to a somewhat lesser extent, in Azerbaijan and Kazakhstan. This is indicated by higher EBRD average transition indicator scores for these reform-minded economies compared with other CARs (Table 4).<sup>10</sup> In these reform-minded CARs, small scale privatization as well as liberalization of prices, trade and foreign exchange systems have improved the most. Furthermore, Kyrgyz Republic has the most open trade regime in the region and is the only CAR to have joined the World Trade Organization (WTO) in 1998.<sup>11</sup> Kazakhstan is also reforming its trade regime and laws and is on its way towards joining the WTO. The unfinished reform agenda in reform-minded CARs includes large scale privatization, banking reform and interest rate liberalization and competition policy. Among the other CARs, Uzbekistan and Tajikistan have begun to make recent progress in price liberalization and small scale privatization. Turkmenistan, however, remains largely unreformed with little prospect of adopting market-oriented reforms in the near future.<sup>12</sup> Better macroeconomic management and economic reform have typically provided a more conducive environment for private sector development in the region. As expected, estimates of private sector shares in GDP in 2005 were higher in the reform minded CARs (between 60-75 per cent) relative to other CARs (see Table 4).

**INSERT TABLE 4 ABOUT HERE**

### *Agricultural Upturn*

An upturn in agriculture since the late 1990s was visible in the non-oil exporting CARs (particularly Kyrgyz Republic and Uzbekistan) arising from generally favorable weather conditions, high world prices for cotton and wheat and some agricultural reforms. Some productivity gains were also achieved in collective farms producing cotton and wheat. Kyrgyz Republic's wide ranging agricultural reforms emphasized privatization of collective farms and an estimated 70% of farm land is now privately-owned (World Bank, 2005). Moreover, price and quantity controls were largely removed, public monopolies dismantled and public investment in the rehabilitation of irrigation systems was increased. Uzbekistan, however, undertook limited agricultural reform (See Rumer, 2002; Rozelle and Swinnen, 2004). In an attempt to improve food security, small garden plots to grow fruits and vegetables were granted to peasants in the early 1990s through Presidential Decree. In the late 1990s, privatization took the form of replacing agricultural cooperatives (known as "shirkats") with individual farmers who receive land leases which are conditional on using the land in accordance with state orders. State control remains pervasive in Uzbekistan in the areas of agricultural purchasing, pricing, subsidies, distribution and provision of inputs.

**INSERT FIGURE 2 ABOUT HERE**

### *Political Stability*

Improved political stability in the late-1990s was also a significant factor associated with the region's economic revival. The most notable developments were ending of the civil war in Tajikistan in 1997 and the abating of the conflict between Armenia and Azerbaijan with the signing of a ceasefire in 1994. Tajikistan is remarkable among post-conflict economies for its speed in forming a functioning government, focus on implementing an economic development agenda and seeking aid from multilateral institutions (World Bank, 2005). The ceasefire enabled Azerbaijan to reduce defense expenditures, invest in infrastructure and concentrate better on attracting FDI into the oil and gas sector. The ceasefire, a booming oil and gas sector, and a high growth environment also stimulated domestic investment in industries closely linked to the oil and gas sectors.

## **Other Features of the Revival**

### *Structural Change*

Central Asia's revival has been driven by structural changes in the economies and has resulted in a shift toward production of industrial goods and minerals and away from agriculture. This shift was marked in the oil and gas exporting CARs. Between 1998 and 2004, the share of industry in GDP rose from 36% to 54% in Azerbaijan and from 31% to 39% in Kazakhstan (see Table 5).<sup>13</sup> While oil and gas continue to drive the industrial sector in these economies, manufacturing has also have grown. Recent manufacturing growth in the CARs is closely linked to emergence of manufactured exports, which grew about 10% per annum for the region as a whole during 1998-2003 (Table 5). By 2003, manufactured exports in the CARs reached to \$3.7 billion. Export

growth from the oil exporting CARs was notable averaging about 11% per year (See Table 3). For the non-oil exporting countries, export performance was more modest but has accelerated since 2001. The largest economies - Kazakhstan (\$2.1 billion) and Uzbekistan (\$785 million) – were the region’s largest exporters of manufactures.

**INSERT TABLE 5 ABOUT HERE**

The structure of manufactured exports varies from country to country. Some CARs have specialized in simple, labor –intensive activities and others in more capital and technology intensive activities (Wignaraja, 2005). Accordingly, textiles and garments account for 80% of manufactured exports in Tajikistan and Turkmenistan and 37% of Kyrgyz Republic’s. A detailed breakdown of Uzbekistan’s manufactured exports was not available but is thought to consist of largely of textile fiber items and some transport items.<sup>14</sup> Meanwhile, 70% of Kazakhstan’s large manufactured export base consists of iron and steel products and the rest made-up of chemicals, plastics and machinery. Azerbaijan’s much smaller export base has a mix of iron and steel, chemicals and machinery.

The high degree of concentration on one or two exports in the CARs is probably inevitable in the early stages of export-led manufacturing growth in transition economies. This is particularly true when they have little experience of international markets and where they have to overcome transportation logistics imposed by being land-locked. Nevertheless, export concentration means that the CARs are especially vulnerable to internal and external shocks (e.g. strikes in key exporting firms or a decline in world steel prices) to these industries. This gap has begun to be recognized in the region. Kazakhstan is noteworthy for its attempt to foster economic

diversification away from the extractive sector through the so-called Innovative Industrial Development Strategy (IIDS), 2003-2015 introduced in 2003 (see GOK, 2003). The stated intension of IIDS is to complement existing economic reforms rather than supplement them. Among other measures, IIDS emphasizes the creation of priority industrial clusters and support institutions for investment, industrial credit and innovation.<sup>15</sup> As IIDS is still in the first phase of implementation (which involves diagnostic studies, training and setting up institutions), it is still too early to assess its impact on Kazakhstan's export performance.

Several factors - including resource endowments, transport costs, incentive policies and initial conditions – are responsible for the improved manufactured export performance and the pattern of specialization in the CARs since the late 1990s (Gormart, 2003a; Freinkman *et. al.* 2004; World Bank, 2004; Wignaraja, 2005). Some common explanations seem to underlie the record of the reform-minded CARs. The emergence of textiles and garment exports in Kyrgyz Republic and Tajikistan is associated with availability of cheap cotton, foreign investment, relatively low wage yet skilled labor, and implementation of market-oriented reforms. The growth of iron and steel and chemical exports from Kazakhstan and Azerbaijan reflects the endowments of iron ore and oil, inflows of foreign investment, improvements in macroeconomic management, the ample supplies high-level technical manpower and significant investments in infrastructure. In some cases, new investments have been made to rehabilitate existing capacity and for new factories.

Turkmenistan and, to a somewhat lesser extent, Uzbekistan, however, have largely followed inward-oriented economic policies inherited from Soviet times and their export growth is linked to resource endowments and special circumstances. Uzbekistan textile exports are mainly from



domestic firms which have exploited advantages of cheap cotton, low cost labor, a protected domestic market and proximity to regional markets. Turkmenistan has managed to attract export-oriented foreign investment in textiles and garments from Turkey through close historical ties between Turkmenistan and Turkey, cheap cotton and highly subsidized electricity.

### ***Poverty Reduction***

After increasing between the beginning of transition and the mid 1990s poverty levels have slowly fallen over the past decade (see Table 6). Based on estimates made in the late 1990s and early years of the new millennium, national poverty line estimates show that between 28% and 30% of the population was in poverty in two oil exporting CARs – Kazakhstan and Turkmenistan - and in Uzbekistan. In the remaining three CARs (Azerbaijan, Kyrgyz Republic and Tajikistan) poverty estimates were nearly twice as high, ranging from around 48% to 57%. For the CARs as a whole, poverty averages around 40%. Poverty has fallen somewhat in the region. In the mid-1990s, estimate of poverty were 34.6% in Kazakhstan, 51.0% in Kyrgyz Republic and 68.1% in Azerbaijan.

Lower inflation rates, stronger growth, creation of new external trade linkages and restoration of social and political stability have been contributing factors to the decline in poverty in the CARs.<sup>16</sup> In addition, remittance income from unskilled and semi skilled overseas workers in Turkey, Russia and Kazakhstan has become an important source of income for the poorer segments of society in the non oil exporting CARS. There have also been trickle down effects from labor intensive industries that have begun to develop throughout the region. Foreign aid to

lift social development has also contributed to poverty reduction, particularly in Kyrgyz Republic and Tajikistan.

**INSERT TABLE 6 ABOUT HERE**

Rural poverty remains a significant problem in some CARs as the sector has absorbed many urban unemployed and the scope for further labor absorption on state farms is negligible. Income disparities and poverty are more pronounced in some sub–regions (e.g. the Ferghana Valley and border regions of Kazakhstan, the Kyrgyz Republic, and Tajikistan). Despite these regional inequalities, overall income distribution figures suggest that income is reasonably equality distributed in the CARs with an average Gini coefficient of 33.2%.

On the broader issue of achieving the Millennium Development Goals (MDG's), the CARs have made progress but there is an unfinished agenda. There is concern that Tajikistan, Uzbekistan and Kazakhstan will not achieve these goals. There is evidence of high and increasing rates of malnutrition in Tajikistan and Uzbekistan. Education standards have also slipped and the virtual collapse of the social sector in some countries has resulted in a general deterioration of health indicators. In this vein, UNESCAP-UNDP-ADB (2005) calls for a reshaping of national and local institutions involved in service delivery to achieve the MDGs. Key issues include making services available, improving quality, reducing barriers to accessing services and broadening the range of providers.

***Policy Stance***

Type I and Type II policies were important in enabling the CARS to begin output recovery to pre 1990 levels. This was particularly relevant in the ability of the CARS to provide a more stable and attractive environments for foreign investors in Kazakhstan and Azerbaijan and to increase the profitability and efficiency of agriculture in Kyrgyz Republic. Nevertheless, the main impetus for the revival seems to lie in higher commodity prices for oil and gas, gold, cotton and metals and restoration of political stability in some CARs. The rapid growth of China and the inelastic world demand for these commodities underlie this bullish external environment. Type III policies were relatively limited in this period since only Kazakhstan has recently begun to introduce industrial competitiveness policies through the so-called innovative industrial strategy – 2003-2015 (see GOK, 2003). The CARS are, to varying degrees, participating in various regional cooperation initiatives. These include: the Shanghai Cooperation Agreement, Central Asian Cooperation Organization (CACO), and Central Asian Economic Community (CAEC).<sup>17</sup> However, these arrangements are subject to the so-called spaghetti bowl effect – a term popularized by Bhagwati (2002). Most of them are overlapping in coverage and have differing and sometimes conflicting objectives. Hence, they are have limited genuine impact in bringing about an effective harmonization of regional objectives in key areas such as trade, energy and transportation (see Pomfret, 2003b).

Two recent studies shed light on the gains from adopting Type III policies in Central Asia. First, using a general equilibrium approach, the UNDP Human Development Report for Central Asia (UNDP, 2005) concludes that the region's GDP could be 50% to 100% higher in ten years following a comprehensive program of regional cooperation and integration. Such a program

would include reduction in trade costs through better transit arrangements, better coordination of water use and flood control, more efficient energy pricing and management, and cooperation in education and knowledge sharing. UNDP suggests that the cumulative gains would be even higher if this highly dynamic regional economy becomes fully integrated with its neighbors and the world economy. They also indicate that the smaller and poor economies of the region (Kyrgyz Republic and Tajikistan) would benefit even more. As the report states: “the benefits from regional cooperation are likely to be distributed in a way that on average helps the poor more than the better off” (p. 207).

Second, using a scenario planning approach another study found that per capita incomes in the region could double by 2015 and poverty could halve if the region adopted policies for economic reforms, regional cooperation and industrial competitiveness (Dowling and Wignaraja, 2005b). Policy reforms would include acceleration in privatization, better corporate governance, financial sector liberalization and export promotion. Regional cooperation would include an integrated road and rail network; streamlining of customs codes and border procedures; and developing a regional energy market and infrastructure. Industrial competitiveness policies would promote diversification, link enterprises into global value chains, upgrade supplier development, restructuring technology institutions and fostering partnerships between government and the private sector.

## 5. Assessment and Conclusions

The CARs experienced output decline equivalent to that of the Great Depression of the 1930s. After observing a limited response of the CARs to policy changes and the economic downturn which followed the break up of the Soviet Union, some observers were ready to write off the CARs as hopeless cases. They are isolated geographically and they suffered severe disruptions and breakdown in traditional markets and there was a lack of alternative trade and supply opportunities which highlighted these disruptions. Their geographical isolation and land locked characteristics as well as lack of experience in governing themselves (since they were provinces of a larger entity) can not be overemphasized.

It is to their credit that the CARs eventually began to cope with this myriad assortment of problems (see Starr, 2004). The evidence accumulated since the bottoming out of the transition recession in the mid-1990s suggests that, quite to the contrary, an economic revival is underway. While the oil exporting countries of Kazakhstan, Azerbaijan and Turkmenistan are showing more robust economic activity the non-oil exporters Kyrgyz Republic, Tajikistan and Uzbekistan are also growing more rapidly. Structural change, particularly an expansion of the manufacturing sector, and poverty reduction have accompanied accelerated growth in the region.

The experience of the CARs highlights both the importance of the speed of reform and nature of the policy mix and favorable initial conditions for successful transition. The evidence further casts doubt on the appropriateness of the Type I “big bang” approach to economic transition in light of local conditions (see Newbery, 1991; Rana and Dowling, 1993; Rana, 1995). Generally, this approach had limited impact in the years immediately following transition (1990-1996) in

the CARs. There were disruptions in trade and production relations with the former Soviet Union, migration of skill personnel, political instability, loss of investment confidence and isolation from external markets. With these developments, local entrepreneurs were unable to disentangle the incentive effect of reform from background volatility. The volatility also contributed to a lack of foreign investor confidence in the CARs except in the mineral sector where the rents were still high. Furthermore, the policies did not address pre-conditions for growth in the form of efficient and well functioning markets for goods, services and factors of production. Nor did they deal with reforming and upgrading institutions from the Soviet era (e.g. the legal system, bureaucratic procedures, technical universities and science and technology institutions) in line with the requirements of a market economy.

The Turkmenistan experience suggests that a complete lack of reform is not a long-term viable option for developing a competitive market economy despite a revival in growth since 1998 as a direct result of higher gas and cotton prices. Excessive state interference and domestic distortions from inward, Soviet style economic policies are likely to hinder private sector activity and market development outside the energy sector. Rural poverty is also likely to persist without agricultural reforms and investments in health and education.

The case of Uzbekistan, the only CAR that followed more gradual policy adjustments, suffered a smaller output decline than the reformist CARs.<sup>18</sup> This highlights the importance of gradual approach to policy reform and keeping some continuity of institutions during transition. However, this is not enough. Inward-orientation, import substitution and excessive state

intervention from the Soviet era have run their course. The time seems to be ripe for new economic policies in Uzbekistan to boost the private sector and markets.

With higher commodity prices (particularly oil and gas), an upturn in agriculture and better implementation of Type I and Type II policies, the incentives effects became more visible to local and foreign investors from the mid-1990s onward particularly in Azerbaijan and Kazakhstan. As a result, FDI increased and domestic investment was also forthcoming. These factors underpinned a rapid acceleration in growth from 1998 onwards. Structural change, manufactured exports and poverty reduction accompanied rapid growth.

The Kyrgyz Republic is an economy that is reputed to be the best reformer in Central Asia. However, after some small gains, it has been characterized by a marked lack of foreign investment, domestic manufacturing competitiveness and high growth. This experience suggests that further policy measures are needed to accelerate growth in a small, resource-poor, landlocked economy.

The short-term prospects for the CARs are optimistic. For the next three years, international financial institutions project economic growth in Central Asia to be around 9% per year (see ADB, 2005 and IMF, 2005). Although inflation will rise somewhat, growth in the oil exporters will continue to be propelled by a combination of high oil and gas prices, buoyant international energy demand, inflow of FDI and investments in modern infrastructure. In the non-oil exporters, growth will be somewhat slower. Favorable prices for non-oil export commodities

(e.g. cotton, gold, aluminum and other metals), expansion in the services sector and economic reforms underlie growth in the non-oil exporters.

The gains from better allocation of existing resources, however, could run out as the revival continues. To sustain future growth, Type III policies for industrial competitiveness and regional cooperation are required in addition to Type I and Type II. These include measures to support accumulation of technological and other capabilities at the firm level which are vital to boosting industrial competitiveness. Furthermore, the expansion of markets through regional cooperation to realize economies of scale becomes paramount. In addition, the interaction of FDI inflows and regional cooperation will enhance the ability of the CARs to reap the benefits of dynamic comparative advantage.

In this paper, it has been shown that initial conditions and policies are critical to economic success during transition. Relying on a one size fits all approach emphasizing rapid transition has brought limited gains in small, land-locked transition economies such as those in Central Asia. Without the recent boom in commodity prices and continued resource exploitation, the region might have witnessed a more prolonged period of economic stagnation. To sustain growth during transition, a case was made for a more gradual and comprehensive approach which includes several kinds of policies including policy reform, regional cooperation and industrial competitiveness. Implementation of a more comprehensive policy agenda requires additional pre-conditions including political stability and good governance, strong commitment to a nationally agreed policy agenda and investment in creating capabilities for economic policy management in an open economy (Dowling and Valenzuela, 2004).



## Bibliography

ADB (2004a), *Poverty in Asia*, Manila: Asian Development Bank.

ADB (2005a), *Asian Development Outlook 2005*, Manila: Asian Development Bank.

ADB (2005b), *Key Indicators 2005*, Manila: Asian Development Bank

Balcerowicz, L. (1994), "Fallacies and Other Lessons", *Economic Policy*, December, 9, pp. 18-50.

Bhagwati, J. (2002), *Free Trade Today*, Princeton: Princeton University Press.

Boeri, T. and Terrell, K. (2002). "Institutional Determinants of Labor Reallocation in Transition", *Journal of Economic Perspectives*, 16:1, pp. 51-76.

British Petroleum (2005). *Statistical Review of World Energy 2005*. London: British Petroleum, 2005

Burghart, D. and Sabonis-Helf, T. (ed. 2004), *In the Tracks of Tamerlane: Central Asia's Path to the 21<sup>st</sup> Century*, Washington DC: National Defense University, Center for Technology and National Security Policy

Chenery, H.B. Syrquin, M. and Robinson, S. (1986), *Industrialization and Growth: A Comparative Study*, Oxford: Oxford University Press.

Compos, N.F and Coricelli, F. (2002) "Growth in Transition: What We Know, What We Don't and What We Should". *Journal of Economic Literature*, XL (September), pp. 793-836.

Djankov. S. and Murrell, P. (2002). "Enterprise Restructuring in Transition: a Quantitative Survey", *Journal of Economic Literature*, 40:3, pp. 739-792.

Dowling, J.M. and R.M. Valenzuela. (2004), *Economic Development in Asia*. Singapore: Thomson Learning.

Dowling, J.M. and Wignaraja, G. (2005a), "Turning the Corner: The Economic Revival of Central Asia" *Central Asia and the Caucasus*, 6 (36), December.

Dowling, J.M. and Wignaraja, G. (2005b) "Central Asia: Mapping Future Prospects" Manila: Asian Development Bank, mimeo.

Durlauf, S.N. and Quah, D.T (1999), "The New Empirics of Economic Growth" in Taylor, J.B. and Woodford, M. (eds.), *Handbook of Macroeconomics*, Vol. 1, Amsterdam: North Holland.

- EBRD (2005). *Transition Report 2005: Business in Transition*. London: European Bank for Reconstruction and Development
- Fischer, S. and Sahay, R. (2000), “The Transition Economies After Ten Years”, *NBER Working Paper Series, Working Paper 7664*, Cambridge, Mass: National Bureau of Economic Research
- Freinkman, L. Polyakov, E. and C. Revenco. (2004). “Trade Performance and Regional Integration of the CIS Countries” *World Bank Working Paper*. No. 38, Washington DC: World Bank.
- Government of Kazakhstan (2003), “Innovative Industrial Development Strategy of the Republic of Kazakhstan 2003-2015”, Astana: Ministry of Industry and Trade. (Cited as GOK, 2003).
- Gomart, E. (2003a), “Standing on a Knife Edge: Doing Business in Uzbekistan” in N. Dudwick, E. Gomart, A. Marc, and K. Kuehnast, *When Things Fall Apart: Quantitative Studies of Poverty in the Former Soviet Union*, World Bank: Washington DC.
- Gomart, E. (2003b), “Between Civil War and Land Reform: Among the Poorest of the Poor in Tajikistan” in N. Dudwick, E. Gomart, A. Marc and K. Kuehnast (ed.), *When Things Fall Apart: Qualitative Studies of Poverty in the Former Soviet Union*, Washington DC: World Bank.
- Hausmann, R, and Others (2005), “Growth and Competitiveness in Kazakhstan: Issues and Priorities in the Areas of Macroeconomic, Industrial, Trade and Institutional Development Policies”, Cambridge (Mass.): Center for International Development, Harvard University.
- IMF and Others (1991) *A Study of the Soviet Economy* (3 Volumes), Washington DC: IMF, World Bank, OECD and EBRD.
- IMF (2004), “Republic of Turkmenistan: Staff Report for Article IV Consultation”, Washington DC: IMF, May 18.
- IMF (2005), *Middle East and Central Asia: Regional Economic Outlook Sept. 2005*, Washington D.C: IMF.
- Lall, S. (1992), “Technological Capabilities and Industrialization”, *World Development*, 20:2, pp. 165-186.
- Lall, S. and Teubal, M. (1998), “Market-Stimulating Technology Policies in Developing Countries: A Framework with Examples from East Asia”, *World Development*, 26:8, pp. 1369-1386.
- Linn, J.F. (2004), “Economic (Dis) Integration Matters: The Soviet Collapse Revisited”, Washington DC: Brookings Institution, mimeo.
- Lipton, D. and Sachs, J. (1990), “Creating a Market Economy in Eastern Europe: The Case of Poland”, *Brookings Paper on Economic Activity*, 1, pp. 75-147.

- Loukoianova, E. and A. Unigovskaya. (2004). "Analysis of Recent Growth in Low-Income CIS Countries", *IMF Working Paper/04/151*.
- Nelson, R. and Pack, H. "The Asian Miracle and Modern Growth Theory", *Economic Journal*, vol. 109, p. 416-?, July.
- Makhmutova, M. (2005) "Budget Process in the Caspian Countries: Experiences of Kazakhstan and Azerbaijan", *Policy Studies*, 2 (7) April: Almaty (Kazakhstan): Public Policy Research Center.
- Mogilevsky, R. (2004), "Role of Multilateral and Regional Trade Disciplines: Kyrgyzstan's Experience", *Studies and Analyses* No. 278, Warsaw: Center for Social and Economic Research.
- Moldasheva, G.B. (2002), "Economic Prospects for Central Asia: Competing in the Global Market Place" in M. Gervers and W. Schlepp (ed.), *Continuity and Change in Central and Inner Asia*, Toronto: University of Toronto, Asian Institute (Toronto Studies in Central and Inner Asia No. 5).
- Newbery, D. M. (1991), "Sequencing the Transition", *CEPR Discussion Paper Series*, No. 75.
- Pomfret, R. (2000), "The Uzbek Model of Economic Development in 1991-1999", *Economics of Transition*, 8:3, pp. 733-48.
- Pomfret, R. (2003a), "Central Asia Since 1991: The Experience of the Newly Independent States" *OECD Development Centre Working Paper* No. 212 (Paris: OECD).
- Pomfret, R. (2003b). "An Assessment of Regional Organizations in Central Asia". Manila: ADB.
- Raballand, G, Kunth.A. and Auty, R. (2005), "Central Asia's Transport Cost Burden and Its Impact on Trade" World Bank: Washington D.C, mimeo.
- Rana, P. and Dowling, M. (1993) "Big Bang's Bust," *The International Economy*, September/October.
- Rana, P. (1995), "Reform Strategies in Transitional Economies: Lessons from Asia", *World Development*, 23:7, pp.1157-1169.
- Rozelle, S. and Swinnen, J.F.M., (2004), "Success and Failure of Reform: Insights from the Transition of Agriculture", *Journal of Economic Literature*, Vol. XLII, June, pp. 404-456.
- Rumer, B. (2002), "The Search for Stability in Central Asia" in Rumer, B. (ed. 2002), *Central Asia: A Gathering Storm*, Armonk (New York): M.E. Sharpe.
- B. Rumer (ed. 1996), *Central Asia in Transition: Dilemmas of Political and Economic Development*, Armonk (New York): M.E. Sharpe.

Rumer, B. (ed 2000), *Central Asia and the New Global Economy*, Armonk (New York): M.E. Sharpe.

Rumer, B. (ed. 2002), *Central Asia: A Gathering Storm*, Armonk (New York): M.E. Sharpe.

Sachs, J. (1996), "The Transition at Mid-Decade", *American Economic Review*, Vol. 86, No. 2. pp. 128-133.

Sabonis-Helf, T. (2004), "The Rise of the Post-Soviet Petro-States: Energy Exports and Domestic Governance in Turkmenistan and Kazakhstan" in Burghart, D. and Sabonis-Helf, T. (ed.), *In the Tracks of Tamerlane: Central Asia's Path to the 21<sup>st</sup> Century*, Washington DC: National Defense University, Center for Technology and National Security Policy.

Simoneti, M. Damijan, J.P., Rojec, M. and Majcen, B. (2005), "Case by Case Versus Mass Privatization in Transition Economies: Initial Owner and Final Seller Effects on Performance of Firms in Slovenia", *World Development*, 33: 10, pp. 1603-1626.

Starr, S.F. (2004). "Central Asia in the Global Economy". *Foreign Policy*. Sept-Oct.

Svejnar, J. (2002), "Transition Economies: Performance and Challenges", *Journal of Economic Perspectives*, 16:1, pp. 3-28.

Trushin, E. and E. Trushin. (2000). "Basic Problems of Market Transition in Central Asia". B. Rumer (ed.), *Central Asia and the New Global Economy*. New York: M.E. Sharpe.

Trushin, E. and E. Trushin. (2002), "Challenges to Economic Policy in Central Asia" in Rumer, B. (ed.), *Central Asia: A Gathering Storm*. New York: M.E. Sharpe.

UNDP (2005). *Regional Cooperation for Human Development and Human Security in Central Asia*. New York: United Nations Development Programme

UNESCAP-UNDP-ADB (2005), *A Future within Reach*. Bangkok and Manila, UNESCAP and ADB.

UNIDO (2004), *World Industrial Development Report 2004: Industrialization, Environment and Millennium Development Goals in Sub-Saharan Africa*, Vienna: United Nations Industrial Development Organization.

Wall, D. (2003), "Uzbekistan: A Review of Trade Policy Issues", Manila: Asian Development Bank., mimeo

Wignaraja, G. (2003) "Competitiveness Analysis and Strategy" in G. Wignaraja (ed.) *Competitiveness Strategy in Developing Countries*. London: Routledge.

Wignaraja, G. (2005), "Central Asia's Response to Globalization", Manila: Asian Development Bank, mimeo.

World Bank. (2002), *Transition: The First Ten Years: Analysis and Lessons for Eastern Europe and the Former Soviet Union*. Washington DC: World Bank.

World Bank (2003), "Azerbaijan Building Competitiveness: An Integrated Non-Oil Trade and Investment Strategy" (2 Volumes), Washington DC: World Bank (Poverty Reduction and Economic Management Unit, Europe and Central Asia Region).

World Bank (2004), "Kyrgyz Republic Country Economic Memorandum: An Integrated Strategy for Growth and Trade" (2 Volumes), Washington DC: World Bank (Poverty Reduction and Economic Management Unit, Europe and Central Asia Region).

World Bank (2005a), "Briefing on Central Asia", Paper for Discussion at Informal Board Meeting on 5 October 2005, Washington DC: World Bank

World Bank (2005b), *World Bank World Development Report 2005*, New York: Oxford University Press.

World Bank (2005c), *Growth, Poverty and Inequality: Eastern Europe and the Former Soviet Union*, Washington DC: World Bank.

Zettelmeyer, J. (1998), "The Uzbek Growth Puzzle" *IMF Working Paper* 98/133, (Washington DC: International Monetary Fund).

Zhukov, S. (2000), "The Economic Development of Central Asia in the 1990s" in Rumer, B. (ed.), *Central Asia and the New Global Economy*. New York: M.E. Sharpe.

Zhukov, S. (2002), "Central Asia: Development Under Conditions of Globalization" in Rumer, B. (ed.), *Central Asia: A Gathering Storm*. New York: M.E. Sharpe.

## Endnotes

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<sup>1</sup> These countries include: Central and Eastern Europe and the Baltic States, South Eastern Europe and the Commonwealth of Independent States. See EBRD (2005) for the details of these groupings.

<sup>2</sup> Some notable exceptions include the papers in Rumer (ed. 1996, ed. 2000, and ed. 2002) and Burghart and Sabonis-Helf (ed. 2004). See also Pomfret (2000 and 2003a), Starr (2004), Hausmann and Others (2005), and UNDP (2005).

<sup>3</sup> Fisher and Sahay (2000) thus note: “A decade ago it was generally expected that output would fall at the start of the reform process, as a result of both macroeconomic stabilization and the reallocation of resources from unproductive to sectors that would be profitable at world prices. ...although the extent to which output collapsed far exceeded expectations. By the time output had bottomed out, it had fallen by more than 40 per cent on average” (Fisher and Sahey, 2000, p. 4).

<sup>4</sup> See the classic study by Chenery, Syrquin, and Robinson (1986). For a comprehensive survey of recent studies on growth see Durlauf and Quah (1999).

<sup>5</sup> A similar magnitude of economic collapse is reported by other studies. Using national GDP data, Zhukov (2002) finds that real GDP in 1990–1995 fell by 58% in Tajikistan, 49% in the Kyrgyz Republic, 39% in both Kazakhstan and Turkmenistan, and 19% in Uzbekistan.

<sup>6</sup> For example, see Campos and Coricelli (2002) and World Bank (2002).

<sup>7</sup> UNDP (2005) suggest that there is an asymmetry in transport costs for shipments between Central Asia and Europe. Data provided by the study shows it costs \$8,500–\$10,000 to ship a truckload of cargo from the Benelux countries to Central Asia and only \$6,000–\$7,000 to ship in the opposite direction. In an “ideal world”, shipments would cost \$5,000–\$6,000 in either direction.

<sup>8</sup> A useful distinction can be made between the oil and gas exporting CARs and non-oil and gas exporting CARs. For further explanations see the papers in Rumer (ed. 1996) as well as Fisher and Sahey (2000), Trushin and Trushin (2000), Zhukov (2000), Pomfret (2003a), Linn (2004), and Loukoianova and Unigovskaya (2004).

<sup>9</sup> On the economic revival in Central Asia see also Rumer (2002), Starr (2004), Dowling and Wignaraja (2005a), and IMF (2005).

<sup>10</sup> The widely cited EBRD Transition Indicator Score is based on the perceptions of its country economists. Pomfret (2003a) among others regards qualitative perception data about progress in reform as being less reliable than quantitative indicators (e.g. effective rates of protection). Given concerns about the quality and reliability of data in the CARs, however, this indicator offers a useful albeit impressionistic measure of reform progress.

<sup>11</sup> See Mogilevsky (2004) for details of the trade regime and the WTO accession process in the Kyrgyz Republic.

<sup>12</sup> According to IMF (2004) and EBRD (2005), Turkmenistan has maintained an inward-oriented, state-controlled development strategy since independence with extensive central management over capital allocations, domestic prices, production, and foreign trade. Exploitation of extensive gas reserves – which have financed prestige infrastructure projects (particularly Ashkhabad) and a welfare state – have enabled it to postpone the transition to a market economy.

<sup>13</sup> In Turkmenistan, the share of industry in GDP remained constant at 44% during 1998–2001 according to World Bank *World Development Indicators* on-line.

<sup>14</sup> As Wall (2003) notes: “Most of Uzbekistan’s export trade take place under state trading arrangements. Trade data being a state secret in Uzbekistan, it is not possible to carry out any serious analysis of export policy, but such aggregate data as are available show that in 2002 cotton fiber, energy and gold accounted for 70% of total official exports... All export data is though to be highly unreliable”, (pp. 32–33).

<sup>15</sup> Detailed studies undertaken by the Center for Marketing and Analytical Research of Kazakhstan have identified seven priority industrial clusters: tourism, oil and gas engineering, food, textile, logistics services, metallurgy, and construction materials.

<sup>16</sup> See Gormart (2003b), World Bank (2005c), and Dowling and Wignaraja (2005a).

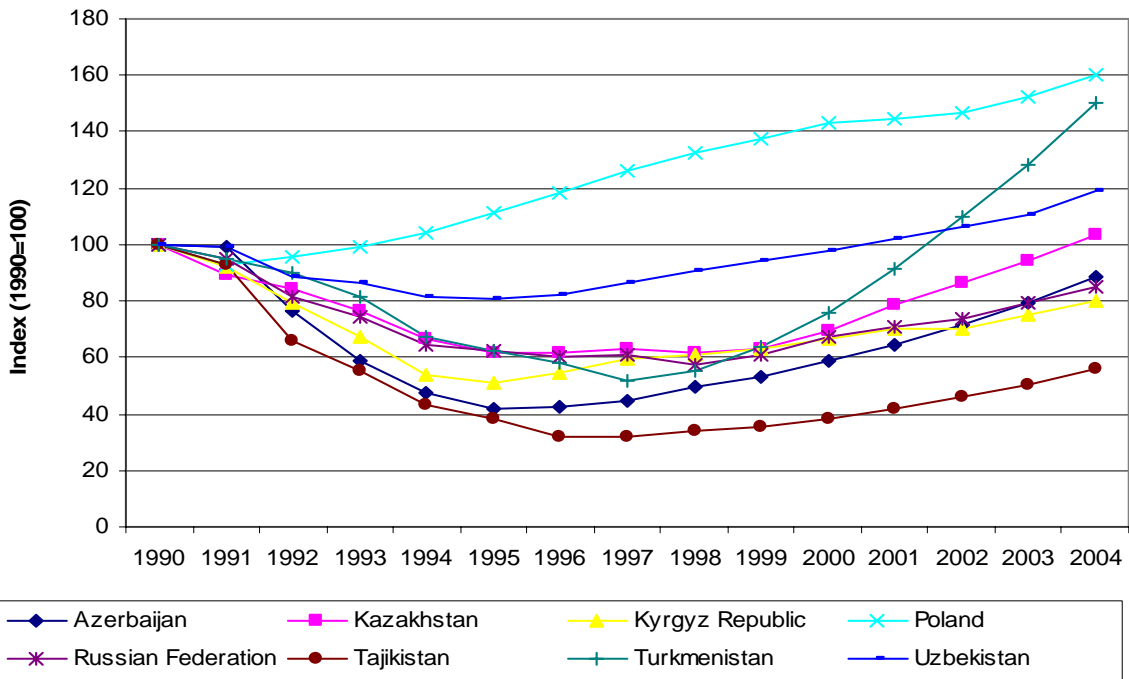
<sup>17</sup> See UNDP (2005) for details.

<sup>18</sup> Others have referred to the relatively limited output decline in Uzbekistan during the early 1990s amidst cautious economic reform as the “Uzbek puzzle”. Loukoianova and Unigovskaya (2004) suggest that Uzbekistan’s economic performance may have been overestimated and that its official GDP data are less accurate than those of the other CIS countries. Meanwhile, Zettelmeyer (1998) argues that Uzbekistan’s output drop was cushioned by a low initial industrialization, its cotton production which could be readily sold on international markets and its self-sufficiency in energy.

**Table 1: Typology of Economic Policies During Transition**

Policy Type	Focus of Policy	Pattern of Implementation and Success
I	<p>These policies and three focal points. <b>Macroeconomic policies</b> including inflation monetary and fiscal policy and exchange rates</p> <p><b>Microeconomic policies</b> include labor markets and wages, establishment of social safety nets, prices liberalization with some exceptions (energy, staple foodstuffs and housing) and removal of subsidies</p> <p><b>Reform of banking and SOEs</b> to including reduced subsidies, privatization and freer entry into the banking system.</p>	<p>These reforms did not achieve the anticipated increase in productivity in the CARs. One reason was that the governments were not able to quickly develop revenue generating measures to fund the newly established governments. As a result they were not effectively able to cut subsidies and replace the inefficient SOEs with more efficient private enterprises. A more likely scenario was the failure of inefficient SOEs once subsidies were removed. Banking reforms were successful in allowing entry although state banks retained power influence in many CARs. Social benefit systems were inadequate as resources were limited. This did not improve until the late 1990s.</p>
II	<p>These policies focused primarily on legal matters including <b>Development of a legal and regulatory framework</b> for industry and the banking system, <b>Privatization of medium and large scale enterprises</b> through sale of assets to employees or outside parties <b>Development of regulations governing the labor market</b> to include wage determination, unemployment compensations and retirement benefits.</p>	<p>These reforms required that governments were able to withstand the pressure of special interest groups. Otherwise the legal framework would not develop a level playing field and would not attract foreign investors. In the oil exporting CARs these policies were successful in providing a reliable environment which attracted FDI. In the non-oil exporters these reforms were less successful. Privatization did not bring expected benefits and special interest groups were able to influence policy.</p>
III	<p>These policies focused primarily on <b>Regional cooperation</b> within the CARs through various initiatives including trade facilitation, transport and energy policies. <b>Development of industrial competitiveness policy</b> to foster diversification away from natural resource based industries into manufacturing.</p>	<p>These policies were slow to develop, particularly in the first half of the 1990s when the CARs were more concerned with developing their own national identities and earning revenue by taxing border trade. Recent developments suggest greater willingness to lower tariffs and cooperate on transport and energy policies. To foster economic diversification, Kazakhstan introduced an innovative industrial development strategy in 2003 which contains some elements of an industrial competitiveness policy agenda such as fostering industrial clusters. Azerbaijan is also assessing its industrial competitiveness and may follow suit.</p>

**Figure 1: Changes in Real GDP, 1990-2004**



Source: World Bank *World Development Indicators on-line*.



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**Table 2: International Prices for Oil, Cotton, and Gold (US\$ per unit)**

Commodity	2000	2001	2002	2003	2004	2005
Oil <sup>a</sup>	28.5	24.5	25	28.8	38.3	53.0
Cotton <sup>b</sup>	59.2	48	46.2	63.3	63.6	63.3
Gold <sup>c</sup>	279	271	310	363	421	375

Source: Oxford Economic Forecasting, Economic Intelligence Unit, IMF World Economic Outlook, and author's estimates

<sup>a</sup> US dollars per barrel; Brent crude

<sup>b</sup> US cents per pound

<sup>c</sup> US dollars per troy ounce

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**Table 3: Trends in Exports, FDI and Remittances, 1990-2004 (in Millions US\$)**

	Average Annual Exports			Average Annual FDI			Average Annual Remittances		
	1990-96	1997-2004	% change	1990-96	1997-2004	% change	1990-96	1997-2004	% change
<b>Oil Exporters:</b>									
Azerbaijan	801.3	2,200.6	174.6	478.7	917.5	91.7	..	118.5	..
Kazakhstan	6,521.2	11,579.6	77.6	1,050.5	2,263.4	115.5	74.7	68.9	..
Turkmenistan	2,085.5	2,386.6	14.4	89.1	156.8	76.1	..	105.7	41.4
<b>Non-oil Exporters:</b>									
Kyrgyz Republic	434.9	665.4	53.0	..	27.9	..	1.6	31.8	1,863.1
Tajikistan	551.7	804.8	45.9	13.5	23.1	71.3	0	43.1	
Uzbekistan	3,848.0	3,585.0	(6.8)	39.2	105.1	168.2	0	0	

Source: World Development Indicators Online, World Bank

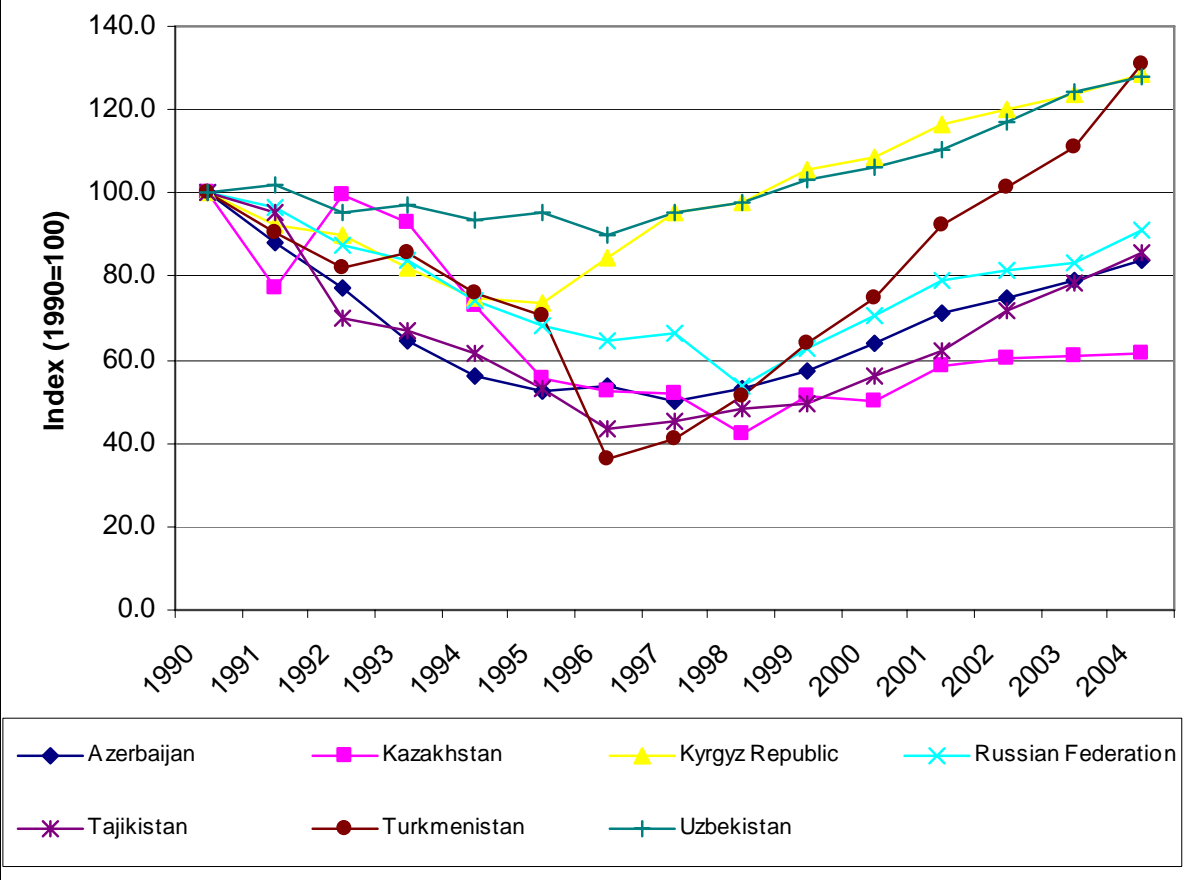
<b>Table 4: Inflation, Transition Indicator Scores and Private Sector Share in GDP</b>				
Country	Annual average Inflation (%)		EBRD Average Transition Indicator Score, 2005 (a)	Private Sector Share in GDP (%) 2005 (b)
	1997-2001	2002-2004		
<b>Oil Exporters</b>				
Azerbaijan	-0.5	3.9	2.8	60.0
Kazakhstan	10.9	6.5	2.9	65.0
Turkmenistan	15.0	6.8	1.4	25.0
<b>Non-oil Exporters</b>				
Kyrgyz Republic	19.1	3.0	3.0	75.0
Tajikistan	46.0	11.2	2.5	50.0
Uzbekistan	32.1	9.7	2.4	45.0

Notes: (a) This is a simple average of individual scores on extent of reform in privatization, markets and trade and financial institutions. The average scores range from 1 to 4 where 1 represents no change from a rigid centrally planned economy and 4 represents the standards of an industrial market economy.

(b) EBRD staff estimates.

Sources: ADB (2005a); EBRD (2005).

**Figure 2: Changes in Real Agricultural Output, 1990-2004**



Source: World Bank *World Development Indicators on-line*.

**Table 5: Industry and Manufactured Exports in the CARs**

Country	Share of Industry in GDP (%)		Average Annual Manufactured Export Growth (current \$)	Manufactured Exports (\$, mn)
	1998	2004	1998–2003	2003
<b>Oil Exporters</b>				
Azerbaijan	36	54	11.2%	134.4
Kazakhstan	31	39	10.1%	2,117.0
Turkmenistan	44	44 (a)	23.0%	225.0
<b>Non-oil Exporters</b>				
Kyrgyz Republic	23	23 (b)	5.4%	193.1
Tajikistan	22	21	7.4%	250.1
Uzbekistan	26	22	8.5%	785.0
Total CARs			9.9%	3,705.0

Notes: (a) 2001 (b) 2003 (c) Industry comprises mining, manufacturing, construction and utilities.

Sources: Author's estimates based on data from IMF; National Statistics Committee of the Kyrgyz Republic; and World Bank *World Development Indicators Online*.

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**Table 6: Poverty Estimates**

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National Poverty Incidence (Pop below poverty line, %)

	Early Period	Recent Period
<b>Oil Exporters</b>		
Azerbaijan	68.1 (1995)	49.6 (2001)
Kazakhstan	34.6 (1996)	27.9 (2002)
Turkmenistan	—	29.9 (1998)
<b>Non-oil Exporters</b>		
Kyrgyz Republic	51.0 (1997)	47.6 (2001)
Tajikistan	—	56.6 (2003)
Uzbekistan	—	27.5 (2000)
<b>CARs</b>		39.9

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Source: ADB (2004a), World Bank (2005b).

— = not available.