Macroeconomic Policies, Income Inequality and Poverty: Uzbekistan, 1991-2002

Giovanni Andrea Cornia

1. Introduction: Transition in Central Asia and the 'special case' of Uzbekistan

The Central Asian republics (CARs) offer an interesting comparative study in reform paths of formerly centrally planned economies. While the CARs share a considerable geographical, religious and cultural unity, and while they initiated the transition to the market economy from fairly similar starting points, they have pursued different policies since the demise of the Soviet Union in December 1991, and especially after 1995. The Kyrgyz Republic has been most committed in introducing Washington Consensus-types reforms. Turkmenistan has been the least committed with a regime concerned more with political stability and distribution of oil rents than with creating a market-oriented economy. Vast gas and oil resources and an authoritarian regime have indeed led the country to postpone sine die any market reform, whether inspired to the Washington Consensus or any other blueprint. In turn, both Kazakstan and Uzbekistan have made some progress with economic reform, with the former increasingly following an orthodox approach while the latter has followed a more gradual and controlled reform process. The specificity of the Uzbek approach to policy reform has been evident both during the macroeconomic stabilization phase of 1991-95 as well as during the recovery phase of 1996-2003. Over the last two years, however, there have been signs that the policy stance might be slowly evolving towards the mainstream approach – as suggested for instance by the unification of the exchange rate and the reduction of the corporate income tax. This 'home-grown' approach to policy making has been the object of sharp criticism, and many predicted that the distortions it caused in the field of relative prices, exchange rate, interest rate and trade protection would have caused large efficiency losses, a collapse of growth and stagnation in human well-being.

By any measure, since becoming independent in 1991, the Central Asian republics have recorded a very poor economic performance. Output has fallen substantially (Table 1), hyperinflation affected all of them in 1992/3, the distribution of income and wealth became more unequal, and poverty increased to unknown levels. The output index in Table 1 may overstate the decline in GDP by underestimating quality improvements and the greater consumer choice and ability to trade that can be welfare-increasing even if output declines. Nevertheless, there is no question that living standards declined for the majority of the CARs' inhabitants and that economic insecurity and poverty have risen sharply.

Table 1. GDP index (1989 = 100) in the Central Asian transitional economies, 1990–2002

	1990	1992	1994	1995	1997	1998	1999	2000	2001	2002
Kazakhstan	100	84	67	61	63	61	**60**	66	75	80
Kyrgyzstan	103	79	53	**50**	59	60	60	63	66	68
Tajikistan	98	65	47	41	**40**	42	44	48	52	56
Turkmenistan	102	92	66	63	**51**	54	63	74	82	94
Uzbekistan	102	90	85	**84**	87	90	93	97	101	104

Source: EBRD (2002)

Interestingly, Uzbekistan – the country among the CARs that had chosen a gradual and controlled approach to the transition – experienced the smallest decline in GDP over the period 1990-5 and

subsequently sustained a moderate but acceptable annual rate of growth of GDP of 3.5-4.0 percent. As a result, already by 2001 it had exceeded its pre transition level of GDP (Table 1). Uzbekistan also had relative success in avoiding hyperinflation, never recording a four-digit annual increase in the consumer price index. Over the last 4-5 years, however, both growth and inflation have performed perceptibly better in Kyrgyzstan and Kazakhstan, raising again the issue of whether the 'Uzbek approach to the transition' generated some long term costs.

Uzbekistan performed better than the other CARs also in the field of public finance and social policy. It was indeed able to transform fairly quickly its prior Soviet-type tax system into a relatively modern revenue generating mechanism. This allowed to raise an adequate amount of tax revenue that permitted to contain the decline of public expenditure on human development - education, health and social security in particular (Table 2). While it also introduced cuts in public spending in all these area because of the budgetary problems encountered during the transition, Uzbekistan was able to contain the retrenchment of key social expenditures that affect poverty and human well-being over both the short and long term. This conclusion would appear even more clearly if the generous expenditures on pensions and social assistance were factored in. No doubt, of all CARs, Uzbekistan is the one that has exhibited the most pro-active social policy during the last decade.

Table 2. Tax revenue and social spending in the Central Asian Republics in transition, 1991-2000

	Tax revenue/GDP		Education/GDP		Health/GDP		Social security/GDP	
	1991	2000	1991	1996	1991	1996	1991	1996
Kazakhstan	27.6	21.7	7.6	3.2	4.4	2.7	4.9	0.6
Kyrgyzstan	22.4	25.7	8.0	5.4	5.0	2.9	5.5	3.8
Tajikistan	35.2*	13.6	11.1	3.3	6.0	1.1	3.0	0.2
Turkmenistan	38.2	25.8	9.6	2.8	5.0	1.5	3.2	0.8
Uzbekistan	30.6	31.1	10.2	7.4	5.9	3.1	7.7	2.5

Source: Muller (2003); Notes: * 1992

These relatively encouraging developments were however obfuscated by a number of problems In fact, despite its comparatively superior economic and social performance, Uzbekistan did not escape the sharp rise in poverty that affected all the economies in transition of Central Asia during the contraction-stabilisation phase of 1991-5. While the data in Table 3 suffer from considerable problems of cross country comparability, they nevertheless indicate that except for Kyrgystan and Tajikistan (that suffered considerable political and military instability), during the years 1991-5, poverty rates In Uzbekistan rose to a level (60-65 percent), similar to that of the other countries of the region. In addition, poverty in Uzbekistan did not improve much either - as it could have been reasonably expected - during the recovery of 1996-2002 due to sluggish growth and the rise in inequality caused by a biased public policy that favored the urban-based, capital-intensive, medium- and large-size enterprises. Thirdly, given the capital-intensive nature of the import-substitution model followed since 1995, both the urban and rural labor markets were unable to absorb into 'decent jobs' a rapidly increasing working age population and the labor surpluses existing in agriculture and the state-owned enterprises.

Table 3. Poverty in the CARs in transition: % of the population with an income of **120$ per month**

	Kazakhstan	Kyrgystan	Tajikistan	Turkmenistan	Uzbekistan
1987-8	5.0	12.0	n.a.	12.0	24.0
1993-5	65.0	88.0	n.a.	61.0	63.0
1998-9	30.9	84.1	95.8	34.4	40.0[2]

Source: adapted from Muller (2003); Notes: see the footnotes to Table 14 in Muller (2003)

2 The macroeconomic stabilization of 1991-5 in Uzbekistan.

The independence and onset of the transition in Uzbekistan coincided with a number of severe shocks and considerable institutional vacuum. These shocks and the policies adopted to respond to it are reviewed hereafter.

(i) exogenous shocks. As elsewhere in the region, during the initial reform period, transition policy in Uzbekistan had to deal with several exogenous shocks inherent to the change of economic system or deriving from the breakup of the Soviet Union (Griffin 1996). To start with, the country was hit by the loss of Soviet budgetary subsidies equivalent in 1991 to 21 percent of the republic's GDP. The country was also affected by a sharp deterioration in the external terms of trade due to the increase in the world prices of oil that was in the past imported from Russia at low cost. A third shock was caused by the disruption of international trade following the collapse of Comecon and the sudden decline in inter-republican trade - that in 1990 accounted for 40 percent of the country's GDP – a fact that caused the severance of the traditional supplier-customer relations on which the Uzbek industry had relied during the prior half century. Fourthly, the shocks caused by domestic and international price liberalization caused large shifts in relative prices (e.g. the prices of inputs vs. those of output) that rendered unprofitable many enterprises, especially those consuming large amounts of inputs (such as oil, electricity and raw materials) underpriced during the socialist era. Finally, in 1991-93 at least three hundred thousand professionals cadres (most of them Russians and Ukrainians) left the country, thus making the restructuring of the national economy more problematic.

In addition, the economy of Uzbekistan exhibited in 1991 a few unfavourable structural characteristics, such as import dependence on price inelastic items such as food and oil and considerable isolation from international markets, a fact that raised the transport costs of both imports and exports. At the same time, Uzbekistan benefited from some initial advantages in relation to other former members of the Soviet Union, as it comprised among its output some items – such as gold and cotton – the export of which was easily redirected from the Soviet Republics to the international markets. It also counted on a fairly complete industrial structure, as Soviet planners seeking scale economies located new factories in established industrial centers such as Tashkent, the only industrial conurbation of Central Asia.

(ii) policy stance. As alluded to in the introduction, the Uzbek approach to macroeconomic stabilization differed markedly from the orthodox model that demands rapid and complete price liberalization, the removal of all consumer and producer subsidies, budgetary austerity, tight money, trade and capital account liberalization ad privatization. Uzbekistan's disinclination to follow this approach became apparent very early as the government preferred to adopt a policy of gradual transformation and continued – if at a declining pace – to intervene in the economy. The concrete measures introduced as part of this heterodox approach include:

- a gradual price liberalisation. Many prices were liberalized in 1991, but several others remained controlled for a few more years and price liberalisation was completed only by 1995. Even then, a few key prices remained controlled at levels below world prices. Energy prices were aligned to world prices in 1996.Wheat and cotton price controls remained in place for much longer;

- enterprise control and subsidies. With privatisation progressing slowly, the government retained an active role in large enterprises. While most consumption subsidies were cancelled quickly, production subsidies to state enterprises were kept in place through direct budget support, cheap credit from government-controlled banks or access to low-cost foreign exchange;

- fiscal policy. Over 1991-4, the government monetized large budget deficits to sustain public expenditure and aggregate demand and prevent the transformation of supply shocks into demand shocks. But already in 1995 revenue collection had increased to a hefty 34 percent of GDP enabling the government to finance a substantial public expenditure program while incurring only a limited deficit;

- monetary policy was accommodating until 1994 and interest rates remained artificially low during all this period (and much later) – so as to reduce the cost of credit to the protected sector. Credit was rationed and was mainly allocated to state enterprises on an administrative basis. Entrepreneurial banking was discouraged and interest rates were set administratively;

- trade liberalization remained limited – as it was feared it could displace domestic producers not used to international competition - and restrictive trade and foreign exchange policies were kept in place for the entire stabilization period. In the mid-1990s tariffs were simplified and reduced, but as 1996 all foreign exchange earnings from centralized exports and part of those from other exports had to be turned over to the central bank which then allocated it at a preferential rate (substantially lower than the free market rate) to approved importers and other preferred buyers;

- privatization proceeded slowly, including due to the lack of buyers. In the absence of a competition law (that was promulgated in most economies in transition only towards the end of the 1990s) privatization would have created domestic monopolies, with a negative impact on employment a little additional creation of value added.

- public expenditure on social transfers (excluding pensions) rose in the first phase of the reform, to reach 4 percent of GDP in 1996 as the coverage of pre-existing transfers (e.g. allowances for children under 16 of age, birth grant and an allowance for the care of children under two years) was maintained while unemployment compensation and assistance to low income families was introduced.

Most of the macroeconomic policies followed during this period were clearly 'second best'[1] policies that later in the 1990s gradually evolved towards a more orthodox approach. Yet, under the difficult circumstances of 1991-95 these unorthodox policies helped reducing the impact of the 'supply shocks' mentioned above in terms of enterprise bankruptcies, unemployment and contraction of GDP and disposable incomes, as experienced in most economies in transition of Eastern Europe and the former Soviet Union. Indeed, while orthodox policies may lead rapidly to transparent market prices, a more efficient allocation of resources and to property rights regimes in greater consonance with a market system, in economies with absent or incomplete markets and inefficient institutions such reforms almost invariably cause large recessions and macroeconomic imbalances that call for strict stabilization policies that further depress the level of output, employment and welfare[2]. Thus, the Uzbek approach deliberately aimed at limiting the decline in the nation's consumption and production capacity, as well as at maintaining order. If the supply shocks mentioned above had been allowed to work through all their effects, the large falls in disposable income that would have followed from them would have caused in turn serious 'demand shocks' (Figure 1), with the final effect to depress not only the demand for the goods produced by inefficient enterprises but also the overall aggregate demand.

---

[1] These policies could create lobbies favorable to their indefinite continuation, even beyond their usefulness. In addition, the misalignement of the exchange rate and of the interest rate could create incentive and distributive effects that might reduce the growth rate over the medium period.
[2] The recessionary bias of such approach is well known also to the staff of the IMF

Figure 1. Impact of uncontrolled shocks on aggregate supply and demand
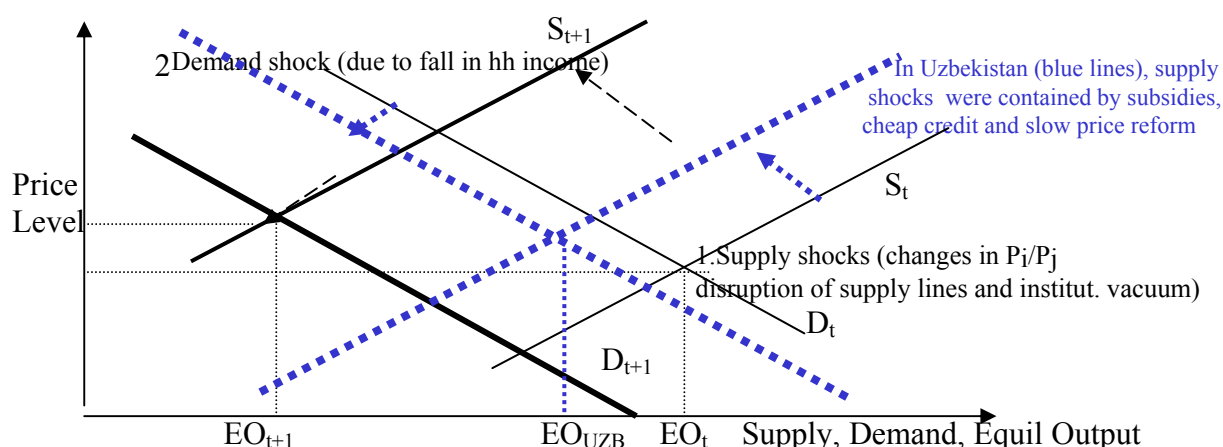
(iii) stabilization outcomes. Though GDP declined by some 18 percent between 1991 and 1995, the recession recorded in Uzbekistan was substantially less pronounced than that experienced by the other countries of the former Soviet Union – and, in particular, by the other Central Asian republics (Table 1). GDP started recovering in 1996 and continued expanding since then at a moderate but steady rate. Heterodox stabilization allowed therefore to contain the costs of a transformational recession that turned out to be the shortest and least marked of the former Soviet Union.

In addition, by 1995 macroeconomic balance was almost reestablished. The fiscal deficit had declined to a bearable 4 percent and the current account was under control, in part because of the successful efforts at improving oil and grain self-sufficiency. Though some prices were still controlled, price liberalisation was broadly completed by 1995. Only inflation remained high despite the widespread recourse to price repression. However, while stabilization was broadly achieved, the exchange rate and the interest rate remained perceptibly misaligned and such to make the proponents of mainstream stabilization predict that such misalignment would soon precipitate a macroeconomic crisis, a prediction that – with hindsight – proved erroneous.

Another undisputable success of Uzbekistan during this period was that fiscal balance was achieved without squeezing pro-poor or pro-growth public expenditures that in 1995 absorbed a remarkable 22.4 percent of GDP. The composition of public outlays reflected a clear concern for alleviating the impact of the transition on the poor and for keeping the state machinery running and represented a model of how the poor can be protected during a turbulent stabilization through social policy interventions. This pro-active and pro-poor policy was made possible by the rapid development of a new tax regime and tax administration that - unlike in most CIS countries –already by mid 1990s collected over 40 percent of GDP in taxes and social security contributions (the latter accounting for some 9-10 percent of GDP) – as opposed to 25-30 percent in the rest of the region.

(iv) Inequality changes during the stabilization phase of 1991-1995. As noted, in 1991 Uzbekistan had a fairly egalitarian distribution of household income. Four factors explained this situation: to start with, full employment, centralized wage regulation and comparatively high minimum wages kept low the inequality of money wages. Second, except for the *bazaaris* and small family plots (*dekhan*), no private economic entities existed at that time. The dominance of state ownership and lack of opportunities for financial investments reduced drastically the importanc of (highly disequalizing) capital incomes. Third, highly equalizing social transfers

accounted for a remarkable 25,2 per cent of total household income, a value approaching that of the welfare states of Northern Europe. Finally, substantial subsidies were provided on basic goods that benefited most the low income families.

The years from 1992 to 1995 were characterized by severe external shocks (the break up of the Comecon, the rouble hyperinflation) and domestic shocks that led to a severe recession and high inflation that required the introduction of painful but unavoidable stabilization measures such as restrictive monetary and fiscal policies and cuts in public employment, subsidies and transfers, i.e. all measures that reduce wages and raise wage concentration. As a result, Uzbekistan experienced in these years a marked contraction in GDP and income per capita and important losses in real wages and employment. Price liberalization in turn lead to very high inflation (that reached 1380 percent in 1994) that affected relative prices, wages and incomes in very different manners. In sum, by 1995 the real money income of the population had fallen to 54.3 percent of their 1991 level.

As a result of these initial changes between 1991 and 1995, the recorded overall Gini coefficient rose moderately, i.e. from 0.26 to 0.31. The decile ratio rose much less – from 8.5 to 9.3 - as the budgetary priority assigned to the highly equalizing income transfers to the poor in the public expenditure despite considerable budgetary cuts and the creation of a decentralized social assistance system based on the makallas in 1994 managed to sustain the income share of the poorest decile. In contrast, the income share of the second through seventh decile dropped markedly while that of the top three deciles of the population rose significantly. Thus, during this period, the reforms sheltered in part the very poor, rewarded in relative terms a middle and upper class constituted by skilled workers and earners of capital incomes and placed most of the burden of adjustment on the middle-lower classes (Figure 2). As GDP per capita declined during this period by 25.3 percent, absolute incomes declined for all except for the top three deciles.

Figure 2: Change in the income shares of the income deciles of the Uzbek population over 1991-5 and 1996-2000

Share growth, %	First	second	third	fourth	Fifth	Sixth	seventh	eighth	ninth	tenth
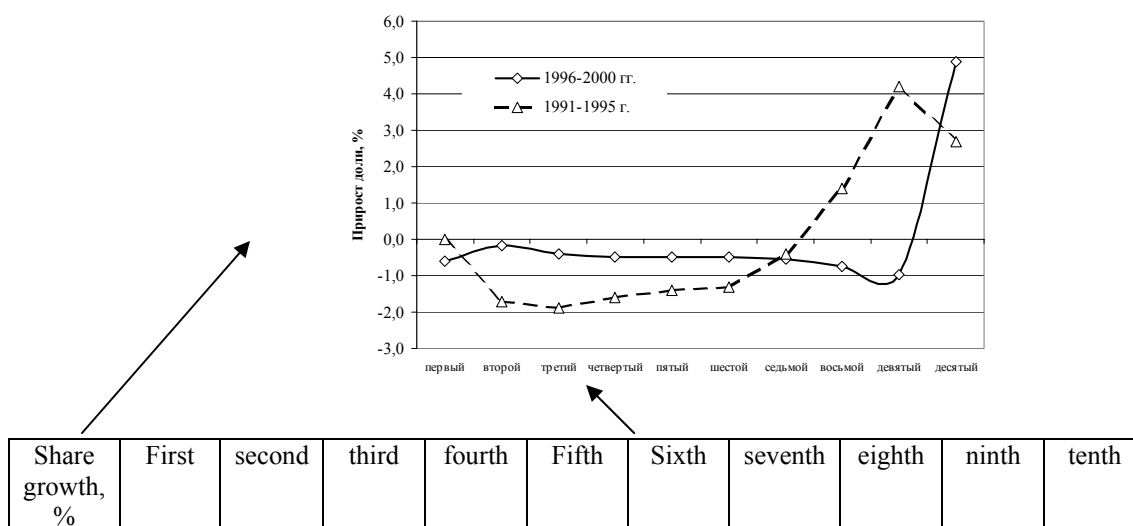
(v) poverty trends during the stabilization phase. Though not widely admitted, Uzbekistan experienced poverty before the introduction of the market reforms. Yet, because of the full-employment, egalitarian distribution, medium level of per capita income and stable prices which prevailed during the socialist era, income-poverty was low and mainly affected social cases and a few marginal groups constituted by large and incomplete families and populations living in

remote areas. In reality, the situation was less rosy than suggested by the income statistics as the distribution of real consumption was affected by queuing and the chronic rationing of most goods, dual distribution systems, parallel markets and regional differences in the supply of consumer goods, i.e. factors that had a disequalizing impact on the distribution of private consumption and family welfare. Sometimes, personal connections and factual access to scarce goods had greater significance than money income.

The impact of the transformational recession and high inflation on the poor was marked. Despite the comparative success of Uzbekistan in containing the collapse of GDP in the early phases of the transition (Table 1) and the introduction of efficient and comparatively well funded social protection measures (Table 2) over 1991-5 the poverty headcount ratio (PHR) rose markedly. In 1991, for instance, economic recession, rising inflation and structural adjustment lead to a sharp drop in real household incomes for the majority of the population that was unable to adjust rapidly to new situation. These economic shocks are estimated to have raised temporarily the PHR up to an estimated 75 percent of the total population (Table 3 provides a similar estimate on the basis of different sources). Poverty remained high during the other initial reform years, as underlined by the result of the first Household Income Survey of 1994-5 that found that 44.5 percent of the population had an income below the minimum wage, a level – as noted above – fairly close to the poverty line adopted subsequently. Such sharp rise in poverty was mainly driven by adverse changes in GDP and inflation and much less by a worsening of income distribution that during this period reached the inequality level prevailing in a market economy.

3. The Import Substitution Industrialization of 1996-2003.

In Uzbekistan, as elsewhere in Central Asia, once the macroeconomic crisis of 1992-4 was stabilized, the long-term development strategy of the country received greater attention than before. Towards the end of the stabilization phase, the government appeared to consider a policy shift towards a more liberal approach. An IMF stand-by arrangement was signed in 1994, trade was partially liberalized in 1995, current account convertibility was planned for 1996 and large loans were obtained from the international financial institutions.

The cotton crisis of 1996 and other considerations were instrumental, however, in advising the adoption of a development strategy that instead prioritized the diversification of the economy through a process of domestic industrialization led by large enterprises on which the government exerted some influence. This approach was possibly encouraged by the success of the earlier import substitution program that, in only few years, had transformed the country into a net exporter of oil and had achieved near self-sufficiency in grains.

(i) external conditions. Also during this period, policy making was influenced by changes in external conditions. These were generally less unfavorable than during the prior phase, including because of the creation of new trade routes and the diversification of commercial partners. Yet, also during this period, the country was hit by external shocks that affected performance and demanded additional adjustments. Among them: the cotton crisis of 1996 that entailed a 15 percent drop in domestic production and a drop in world prices; 'contagion' caused by the Russian financial crisis of August 1998 and the ensuing 100 percent devaluation of the ruble; and the 1998-9 poor cotton harvest and continuing decline in world cotton and gold prices i.e. events that contributed to the 25 percent fall in terms of trade recorded between 1995 and 1999.

(ii) policy stance. The macroeconomic stance was characterized by a determined effort at achieving the usual targets (low budget and current account deficits, low inflation and low debt/GDP ratio) through a mixture of orthodox and heterodox measures. For instance, the government followed a policy of gradual money tightening (except for the crisis periods), while

a low fiscal deficit was achieved through a tax policy that continued to generate substantial revenue. In contrast, external balance was achieved mainly through import controls and the rationing of foreign exchange while low external indebtedness was due to limited borrowing and the closure of the capital account.

Development policy, in contrast, differed substantially from the Washington Consensus model which assigns a dominant role to a market-led allocation of resources and external integration based on static comparative advantages. In the Uzbek's import substituting industrialisation strategy, the state retained a major control on many economic choices and the intersectoral allocation of resources[3]. The main long term objective of such state-led development strategy was the diversification of the economy away from the primary sector and the reduction of its export dependence on cotton.

In this model, the domestic market plaid the main role in absorbing the domestic output. The imports of investment and intermediate goods needed for the modernisation of industry were financed by the exports of cotton, gold and other commodities of which the country is richly endowed. Consistent with the goal of supporting domestic industry the government:

- introduced in early 1997 a multiple exchange rate regime, by which all foreign exchange proceeds from centralized exports as well as a share of those from non centralized exports were to be surrendered to the UCB at the official (overvalued) exchange rate. Access to foreign exchange at the official rate was ensured to selected enterprises importing essential inputs, while non priority firms had to compete for limited supplies of foreign exchange at the bank rate or at the open market rate, both of which were far less favourable than the official rate;

- kept in place state orders for cotton and grain production – that were fulfilled by state farms and *shirkats* - to secure the foreign exchange needed for the imports of the protected industries or to avoid the importation of large amounts of cereals. Over 1995-9 the price paid for state orders for cotton averaged 54 percent of the world market price if the comparison is based on the official exchange rate or 21 percent if the comparison is done on the basis of the curb market rate (see also IMF 2000);

- further protected from foreign competition the priority sector (the automotive, chemical and some mechanical industries) by means of tariff and non-tariff barriers. Thus, trade liberalization was much more limited than in neighboring Kazakhstan and Kyrgystan while recourse to import compression remained common;

- directed cheap credit to the priority sectors through the CBU and the state-controlled commercial banks. As a result, credit allocation was largely done in an administrative fashion;

- continued the slow privatization of big state enterprises. In late 1996, the government created private 'investment funds' (whose shares could be bought by the public) that purchase shares in medium and large scale enterprises. In 1998 the government also initiated a case-by-case privatization scheme but also in this case the results are modest,

---

[3] The government retained significant control over many enterprises, whether public or privatised, and over cotton and grain production. In all these cases the government elaborated 'indicative plans' which reportedly served as output targets in many cases.

- On the institutional front, the government sustained its prior dualistic land distribution policy that combined family plots (the number of which reached 3.2 million units in 2001 with an acreage of about 400.000 ha) producing high-value foods including livestock and a limited number of large state farms and *shirkats* mainly specializing in cotton and grains. In 1999, a new type of 'commercial family plots' (*dekhkan*) provided with lifelong leases transmissible through inheritance was introduced. The *dekhkan* now number 1.8 million units with a total acreage of 290,000 ha and an average size of 0.16 ha.

Since 1998, the insolvent *shirkats* started to be reorganized into medium size private farms of 20 hectares on average that received land lease rights of up to 50 years. This sector expanded rapidly and now comprises 55.000 farms that control an acreage of 1 million hectares, twice the amount of land under the control of 3.2 million family plots. This period witnessed also a reduction in state procurement quotas for (planned) outputs of cotton and wheat and their abolition for all other products. However, in practice, all this meant little for farmers who had to keep selling a large share of their cotton at low official prices. Only in 2002, it was decided that procurement quota must be related to actual and not to planned output;

- the privatization of banks lagged behind. Though there are now private banks in Uzbekistan, the majority of the large banks are still state-owned. A 1998 attempt by the government to limit public ownership in commercial banks could not be implemented;

- social policy too witnessed some changes. Expenditure on social transfers declined from 4 to 2 percent of GDP between 1996 and 2002. Child allowances suffered the biggest decline, as they were under-indexed for inflation and were targeted on poor families. Meanwhile the funds assigned to social assistance dropped by half relative to GDP.

(iii) macroeconomic and growth performance. The picture was mixed. On the macroeconomic front, this policy approach led to a further improvement in the basic macroeconomic balances (Table 4). At the moment, the twin deficits are under control, and are lower than in several industrialized countries. The foreign debt service is sustainable, though the situation has worsened with the devaluation of 2002-2003. In turn, inflation is lower than in the past but has ceased to decline[4] and is now higher than in other CIS countries. This means that the import substitution strategy followed by Uzbekistan was not characterized by the 'macroeconomic populism' that featured prominently during unorthodox policy experiments. If one further consider that the exchange rate has been unified, it appears that the 'second best' policies

Table 4. Indicators of Uzbekistan's Macroeconomic and Growth Performance, 1992-2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP growth rate[1]	-11.1	-2.3	-5.2	-0.9	1.7	5.2	4.3	4.3	3.8	4.5
Consumer price inflation rate[2]	718.8	1042	1457	249.5	54.0	58.8	17.9	29.1	24.9	27.4
Fiscal balance[3]	-18.3	-10.4	-6.1	-4.1	-7.3	-2.4	-3.0	-2.7	-1.2	-1.0[5]
Current account balance[4]	-12.0	-8.4	2.1	-0.2	-7.8	-5.4	-0.4	-2.0	2.8	-0.5[5]

Source: Kotz (2003); Notes:1 Percentage change in real GDP from the previous year; 2. Percentage change in the consumer price index from the previous year. 3. Surplus (+) or deficit (-) of the general government budget as a percentage of GDP. 4.Surplus (+) or deficit (-) on current account as a percentage of GDP. 5Estimate.

adopted in the earlier part of the transition do not seem to have caused major long term macro imbalances or the output collapse predicted by some in the mid 1990s. In retrospective,

---

[4] The rate of inflation (around 25 percent between 1999 and 2001) has however fallen below the 40 percent a year that the international evidence (Stiglitz 1998) considers the

therefore, these 'second best' policies entailing the recourse to state controls and some misallocation of resources appear to have been – given the concrete situation of Uzbekistan – fairly efficient over the long term.

How about the efficiency of import substitution? On the one side, the substitution of oil and grain imports was very successful and quickly reduced the country's dependence on price inelastic imports. Oil self-sufficiency was achieved in three years and since 1995 the country has become an exporter of energy products that accounted in 2001 for 8 percent of all exports. Also for wheat the results were favourable though, in this case, the distributive effects were less positive. Wheat output rose from 0.6 million tons in 1991 to 2.3 in 1995 to 3.3 in 2001 without a corresponding decline in the output of other crops, thus triggering in this way a lasting expansion of the production possibility frontier in agriculture. In both cases, government control over the collective farms and the oil industry enabled it to direct quickly investments and technical assistance to these sectors, allowing in this way to achieve self-sufficiency. Given the features of Uzbek agriculture, the weakness of its input and credit markets and the large indivisible investments required in the oil sector, it is unlikely that such objectives could have been achieved so quickly had a market-led approach been followed.

Import substitution in industry was - on the whole – less successful and implied a misallocation of foreign exchange, credit and other resources that deprived of growth opportunities the small and medium enterprises and a large chunk of agriculture. In addition, in view of the high capital intensity of the protected sector, the price paid in terms of lower employment was substantial. Data on capacity utilization, production and exports for the protected sector point to an uneven situation. Capacity utilization rates are high in the oil-chemical and raw material complex but mediocre or very low in others. For instance, in the automotive sector capacity utilization has oscillated between 19 and 35 percent. In the engineering sector, rates of utilization have fallen steadily since 1993 and now range between 10 and 20 percent. The processed food sector shows a fall in rates from 60-90 in 1991 to 40-50 percent in 2001. In contrast, utilization rates have been higher in the transport sector and other industries, as signaled by the rise in 'other exports' that in 2001 came to represent a third of total exports, pointing in this way to some diversification of the manufacturing and export basket.

As a result of sustained growth in agriculture, transport, oil, services and slow growth in industry, GDP expanded during this period at an acceptable rate of 3.5-4 percent (Table 1).

(iv) inequality trends during the import-substitution-led recovery of 1996-2002. As noted, this period was characterized by the adoption of a full fledged 'import substituting industrialization (ISI) strategy' as well as by the gradual introduction of 'microeconomic' and 'institutional reforms' entailing the liberalisation of the labour market, market competition, as well as the reforms of banking and credit, social insurance, social assistance and privatization. The ex-ante effect of many of these reforms is undetermined, and its real-life distributive impact depends on the concrete choices made by the policy makers on occasion of their implementation, and on the political economy conditions at the time of their implementation. For instance, competition, banking and credit reforms can – in principle - help creating a competitive environment and lessening the liquidity constraint of small enterprises, thus equalizing in this way the distribution of income over the medium term. But such reform can also be disequalizing if the lack of proper 'institutions ' restricts the access to credit for most sectors of the economy, or if financial instability increases, as often observed in countries undergoing financial 'de-repression'. Other market reforms, in contrast, generate – by definition – some income polarisation. For instance, the abandonment of centralized wage regulation is expected to increase earnings inequality in line with the distribution of scarce human capital undersupplied

during the socialist era. Also in Uzbekistan, therefore, the transition was expected to generate some catching with the level of inequality typical of market economies.

In reality, inequality rose much faster than expected ex-ante on the basis of standard theory or than observed in the economies in transition of Central Europe. Official data suggest that the Gini coefficient of the distribution of gross income rose from 0.31 in 1995 to 0.42 in 1997 to decline to 0.39 in 2000. However, a closer look at the data suggests that - as in other economies in transition - rents, interests, property and entrepreneurial incomes are underestimated and that therefore overall inequality is likely to have risen by 2000 to 0.45-0.48[5]. This means that inequality rose over 1996-2002 at a faster pace than during the difficult recessionary years of 1991-95[6] and that in early 2000s income polarization reached a level similar to that of 'high inequality' transition countries such as Russia and slowly approaching that of the countries of Latin American.

The sources of such inequality rise are analyzed in section 4. Here, it suffices to note that the rapid increase in inequality recorded over 1996-2002 was driven by the capital-intensive pattern of the ISI-strategy that demanded large transfer of resources from agriculture to the import substituting sector via the dual exchange rate mechanisms and various forms of taxation of agriculture. It was also caused by the adverse distributional effects of reforms in the field of

---

[5] There are four reasons for this. To start with, the measured share of entrepreneurial income (10.0 percent of the total) and – especially - property income (0.07 percent) are unrealistically low suggesting their underreporting in an economy where mixed incomes, rents (including from corruption) and profits have risen with the deregulation and commercialization of the economy and with a rise in capital flights. Second, entrepreneurial income, income in kind and income from sale of farm products estimated on the basis of the 2000 HBS has a weighted concentration coefficient (0.371) which is substantially lower than that of the similar 'self employment incomes' observed in economies in transition such as Bulgaria (0.532) and Poland (0.418). The same applies to property income that was respectively of 0.744 and 0.786 in these countries (Cornia 1996) and of 0,540 in Uzbekistan. Here too, the under-sampling of high-income earners led to an artificial under-assessment of the true inequality. Third, the concentration coefficient of wages derived from the HBS (0.386) is lower than that (0.418) derived from the wage surveys (Table 6). Fourth, most surveys of gross earnings make reference to 'accounting wages' and not to 'wages effectively paid'. Wage arrears are not randomly distributed among the wage classes. In Uzbekistan, for instance, this problem is much more severe in rural areas, especially among *shirkat* workers. In Russia wage arrears concerned 40 percent of the workforce, but affected 92 percent of the agricultural workers and 50 percent of the industrial workers. This means that the distribution of the 'accounting wages' in the Russian surveys underestimated the real distribution of earnings by between between 3 and 17 Gini points, depending on the size and structure of the sample concerned (Fleming and Mickleright 1999).

Table *Gini coefficient of the distribution of gross income, concentration coefficients of the income components and shares of total income by income type, 2000*

|	Coefficient of concentration	Share
Gini of Gross income per capita	**0,389**	**1,0**
Including sources:		
Wages and salaries	0,386	0,34
Entrepreneurial income	0,449	0,10
Income from the sale of farm products (dekhan xozyaystvo)	0,523	0,10
Income in kind for food self-consumption (dekhan xozyaystvo)	0,208	0,14
Pension and dole (aid)*	0,367	0,20
Poor family welfare and aid for families with children up to 16 year (through system «makhalla»)	-0,028	0,02
Welfare from relatives	0,546	0,05
Property income	0,540	0,00
Other	0,548	0,06

Source: Cornia et al. 2003 ; Notes:*) excludes the aid channeled through the makhallas

[6] In most cases, the periods of economic recovery are characterized by an improvement in income inequality, while recessions tend to be disequalizing Ravallion (2001).

taxation and by the slow institutional progress recorded in the field of land distribution, market competition, privatization, banking and credit, i.e. reforms that – by creating a competitive market environment and improving access to resources to small producers – help equalizing the distribution of income. Social policy, in turn, has not been a major factor in this increase.

(**v**) **poverty**[7] **outcomes.** Outcomes in this field were only partially satisfactory. With the recovery of output that began in 1996-7, over 1997-2001 the PHR exhibited only a volatile decline trend (Figure 3) reflecting the year to year changes in GDP per capita and income inequality and the 'bunching' of the income distribution around the poverty line. Even these figures appear too optimistic as other estimates place the real level of the poverty rate at 22-27.5 for 2000/1 (see later). In addition, poverty is much higher in rural areas and remote regions.

Figure 3: Evolution of the Poverty Headcount Ratio, Percentage of Needy Families & GDP Growth
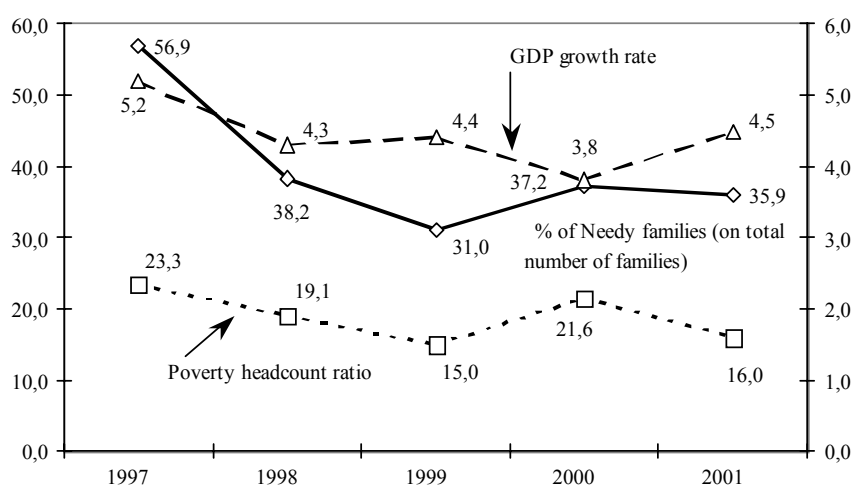
This trend in poverty is confirmed by other indicators of income inadequacy, such as the number of cases of payments arrears and the increase in the demands for social assistance. For instance, between 1994 and 1997 the percentage of 'needy families' receiving social assistance from the makhallias or the government had spiralled to 56.9 percent by 1997 (Figure 3) due to the sharp fall in household incomes of 1992-5 and their only gradual recovery of the subsequent few years. While

---

[7] The measurement of poverty in Uzbekistan has evolved over time. Prior to 1994, the country did not dispose of a regular system for collecting data on household incomes based on randomized samples. During the socialist era, the assessment of poverty and inequality was carried out on the basis of the distribution of money wages, income transfers and other routine statistics. With the market reforms, 20 thousand randomly selected families were surveyed in 1994 by Goskomprognozsstat. This surveys are now carried out every year, and their results used to assess the trends in poverty and inequality. In addition, in 2000/2001 a Household Budget Survey was carried out by the World Bank and the Uzbek Central Statistical Office.

The country does not have an officially sanctioned poverty line tough this is normally approximated by the cost of a consumer bundle including 20 basic foods and other essentials. In 1997 a poverty line equal to the per capita cost of a basic food basket ensuring an energy level of 2100 calories and a few basic non-food consumption items was established (CER 1997). Such approach takes into account the fact that most needy families own the house where they live and have almost free access to education and primary medical services. In 2001 this unofficial 'poverty line' was equal to 2917 soums per person/month (the official exchange rate was 423 soums = 1$).

The extent of poverty can be assessed also on the basis of the applications received by the social assistance system and the makhallias. On the one side, 20-25 percent of the households receive from the state targeted child allowances. In addition, 12 thousand 'makhallias' i.e. local self-governing bodies, provide directly some aid to members of their communities on the basis of the assessment by the local social assistance commission. Thus, the number of applications for social assistance received by the makhallias and/or the number of people receiving grants are another indicator of the extent of poverty and low income and of its changes over time. Such scheme is well targeted.

useful in avoiding the most acute forms of deprivation, such benefits are generally unable to lift their recipients out of poverty. For this reasons, a surge in the number of social assistance recipient is by itself a reliable measure not only of the efforts to tackle poverty but also of the extent of poverty itself.

The limited poverty reduction over 1996-2002 was clearly influenced also by the trend in income distribution. Formally, one can show that—given a constant poverty line (z)— changes over time in the poverty headcount ratio (ΔPHR) can be decomposed into a percentage change in mean income per capita, (ΔGDP/c), a percentage change in its distribution (ΔGini) and an interaction term (*IT*):

$$\Delta PHR = - \Delta GDP/c + \Delta Gini + IT$$

Such relation – in which ΔPHR and ΔGini co-variate - is verified in Uzbekistan over the 1996-2002 period (Figure 4) that confirms that any policy aiming at reducing poverty requires also that inequality declines or, at least, does not increase. In addition large increases in inequality – or the persistence of high inequality – may affect the rate of growth of GDP per capita itself, thus depressing the prospects for poverty reduction. Thus, any increase in inequality may influence both directly and indirectly the trend in the PHR.

Figure 4: Percentage Changes in Gini coefficient and Poverty Headcount Ratio
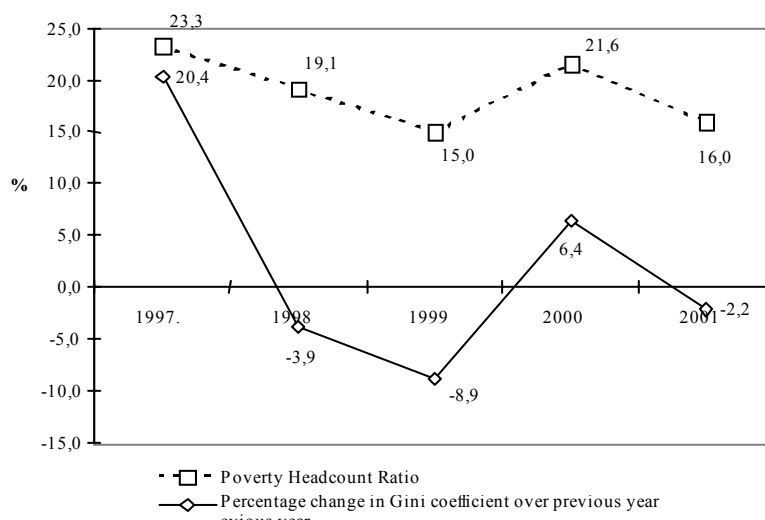
4. The rise of overall inequality and its policy determinants

What explains the rise in income inequality discussed above? To answer this question one must remember that, at any point in time, the degree of inequality of the distribution of total household income can be decomposed into the degree of inequality of its components (wages, transfers, capital incomes, etc.) weighted by their relative income shares. Likewise, changes over time in total income inequality can be decomposed in increases/decreases in the degree of inequality of each income component and in the increase/decrease of the share of each income component in total income[8]. This decomposition, allows us to reconstruct the overall distributive changes of the 1991-

---

[8] At any point in time, the Gini coefficient can be decomposed as follows:
$$G_t = \Sigma s_{it} C_{it}$$
where C_{it} is the concentration coefficient of the i-th income component and s_i its share in total income (the concentration coefficient C_{it} is similar to the Gini index except that the ranking of individuals is by the total income and not the i-th income components. As a result C_{it} can ranks between 1 and −1). Changes over time in Gini coefficient can therefore be decomposed:

2001 period on the basis of the changes in the inequality of the distribution of wages, capital incomes, income transfers and sales of agricultural products and of the changes in their share in total income. This more disaggregated approach permits to trace more precisely the impact of each policy decision on income inequality. We thus turn to an analysis of these changes, starting from the change in the structure of incomes in Uzbekistan:

- a disequalizing change in the structure of households incomes. The transition induced a highly disequalizing shifts in the structure of household incomes. Indeed, the low inequality components (social transfers and wages) fell and the high inequality ones (profits, rents, entrepreneurial incomes and incomes from the sale of agricultural products) rose. The most dramatic shift concerned the collapse of the wage economy, as shown by the 13 points fall in the wage share between 1991 and 1995 and its 16 point decline thereafter. The share of social transfers dropped too by around 10 percentage points despite the Government attempt to protect such type of expenditure.

Table 5. Percentage structure of the monetary income of the population

	1991	1995	1996	1997	1998	1999	2000
Wages and salaries	57.0	44.2	43.0	39.4	36.4	32.3	28.3
Social transfers	25.2	16.7	17.5	14.8	15.1	13.8	14.9
Income from the sale of agricultural products	9.7	19.2	25.4	20.4	23.0	25.9	26.1
Other (interests, rents, profits, entrepreneurial incomes)	8.1	19.9	14.1	25.4	27.3	28.0	30.7

Source: Ministry of Macroeconomics and Statistics (Tashkent).

In parallel, the privatization of state assets, the removal in 1994 of restrictions on entrepreneurship and the spread of commercial and speculative activities permitted to a part of the population to start new businesses. All this raised the share of informal sector incomes, mixed incomes, entrepreneurial profits, rents and other types of capital income, some of which are likely underestimated. One peculiar aspect of liberalization in Uzbekistan is the rise of incomes from the sale of agricultural products, a fact that has helped sustaining the incomes of some rural families but that did not benefit the families living in remote areas, with limited amounts of good quality land and lacking access to credit, inputs and technical assistance. Overall, changes in income structure account for between a third and a half of the overall increase in the Gini coefficient of the distribution of overall income.

- Rising wage inequality. Prior to the transition, Uzbekistan had an egalitarian wage distribution (with a Gini coefficient of 0.257 in 1989 and 0.263 in 1991), similar to that of many other socialist economies. However, the large decline in the wage share observed between 1991 and 1995 was accompanied by a rapid increase in wage inequality, as signaled by the dramatic fall in the wage share of the low skilled workers belonging to the bottom twenty percent of the wage distribution and the symmetric rise in the wage share of the top twenty percent while the shares of the second, third and fourth quintile remained unchanged (Table 6). As a result, the Gini coefficient of the wage distribution rose 8 points (from 0.263 to 0.343) between 1991 and 1995.

$$\Delta G = G_{t+n} - G_t = \Sigma \Delta s_i C_i + \Sigma \Delta C_i \, s_i + \Sigma \Delta s_i \Delta C_i$$

where the Δs_i and ΔC_i refer to changes of the income shares and concentration coefficients over the period t - t+n. In practice, this decomposition of the overall increase in income inequality requires the knowledge of the shares of each type of income and the concentration coefficients for both the initial and final year.

Table 6. Changes in the distribution of money wages, 1989-2001

	1989	1991	1995	1996	1997	1998	1999	2000	2001
Wage share by quintiles	100	100	100	100	100	100	100	100	100
First 20 percent		11.2	6.9	6.5	6.1	6.0	6.5	6.5	6,1
Second 20 percent		11.8	11.1	10.9	10.6	10.5	9.3	9.3	9,2
Third 20 percent		15.7	15.4	15.0	14.4	14.3	13.8	13.8	13,8
Fourth 20 percent		22.7	22.5	21.4	21.6	22.1	21.2	21.4	22,3
Fifth 20 percent		38.6	44.1	46.2	47.3	47.1	49.1	49.0	48,7
Quintile ratio ($5^{th}/1^{st}$)		3.4	6.4	7.1	7.8	7.9	7.5	7.6	8,0
Gini coefficient	0.257	0.263	0.343	0.360	0.374	0.375	0.420	0.418	0,421

Source: State Department of Statistics of the Republic of Uzbekistan, UNICEF (2002), Pomfret (2001).

After this initial – and to an extent unavoidable – rise following the liberalization of wage formation, wage inequality worsened by as much between 1996 and 2001. In fact, the Gini coefficient of the wage distribution climbed a further 7.8 points during this period –reaching in this way the level of 0.421 in 2001 - owing to a gradual but steady erosion of the wage share of the three middle quintiles of the working population and a further 5 points rise in that of the top workers quintile. During this period the wage share of the bottom twenty percent remained stable. It must be noted that a Gini coefficient of the wage distribution of 0.42 is very high and denotes an inadequate functioning of the labor market[9].

A routine explanation of such increase in wage dispersion has to do with the liberalization of wage determination which is generally expected to lead to a pattern of remuneration closely linked to the skill level of the different workers. In some cases, the demand for new skills (computer specialists, accountants, people with knowledge of foreign languages, bankers, etc.) did not always found an adequate supply of skilled workers, thus leading to over-remuneration (Vecernik 1994, World Bank 1994). However, more than by skill level, wage dispersion appears to have increased across industries, including across industries that do not differ much in terms of the skill level of their workers (Table 7). Which industrial sectors gained from these changes? With the exception of construction, the gainers were those that already prior to the transition had (sligthly) higher than average wages, i.e. sectors such as energy, petrochemicals, mining, metallurgy[10], construction, transport and finance. These were among the first to be privatized and the ability of the policy maker to regulate wage formation therein declined rapidly. On the other hand, sectors parts of the state budgets, like health, education, research and culture – as well as in trade - remained well below the average wage. The most dramatic change concerns the agricultural wages that by the year 2000 had fallen by almost two thirds. As a whole the inter-industrial wage gap increased tangibly.

---

[9] For instance, the Gini coefficient of the distribution of gross monthly wages in the economies in transition of Central Europe in 1995 ranged between 0.28 and 0.30. Only Russia and Ukraine had in the same year Gini coefficients of the wage distribution in the 0.44 - 0.46 i.e. higher than Uzbekistan (Cornia 1996, MONEE 2002).

[10] In 2001, relative to an average economy-wide monthly wage of about 25.000 soums (with a wage index of 100), the energy sector had an index of 278, the petrochemical of 276, the ferrous and non-ferrous metallurgy of 346, light industry of 110, transport of 194 and agriculture of 50.

Table 7. Evolution of indexes of inter-industrial wage differentiation, 1991-2000

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Coefficient of variation	45.1	40.9	53.1	52.9	52.8	56.1	61.5	62.4	70.1	69.0
Ratio of *max* to *min*, wage	2.43	2.29	3.35	3.57	2.76	3.31	4.16	4.47	4.62	4.36

Source: elaboration on official data

What are the reasons for this increased inter-industrial wage inequality? One argument is skill scarcity, particularly if reference is made to industrial skills in advanced sectors making use of high-tech imported technologies. But the argument is not of general applicability, as the health, education and research sectors are characterized by a high level of (mostly traditional) skills, which in other countries tend also to fetch fairly high wages. A second explanation focuses on the rapid rise in the number of people employed in the non-public sector[11] characterized by highly informal labor relations and minimal wage and contractual controls, especially as Uzbekistan lacks institutions for the collective negotiation of wages (such as tripartite national wage settlements as in some countries of Central Europe) or the regulation of the minimum wages or of unjustified inter-sectoral wage differentiation.

A third explanation for the widening of the inter-industrial gap focuses on the rise of labor productivity differentials across sectors caused by the shift to international prices (this is especially true for the energy sector). But it may also have to do with the quasi monopolistic nature of such sectors which – in a poorly regulated market system – gives them greater capacity to exert political pressure, raise output prices and push up wages. This is particularly true for vital sectors such as mining and electricity. Workers have much less sway in the agricultural or non-strategic manufacturing sectors, where competition is growing tougher due to privatization, industrial rationalization and import liberalization, and where the risk of lay-offs is greater than in other industries. Likewise, the abnormally low wages in the state sector (education, health, research) were due to difficulties in tax collection and the need to contain the budget deficit. And finally, the dramatic fall in relative agricultural wages reflects the stagnation of agricultural institutions, the 'squeezing' of agriculture through adverse pricing, credit and foreign exchange policies that transferred resources to the priority import substituting sector and the slow gains in productivity resulting from the restructuring of this sector.

- **Rising regional wage inequality**. Another aspect of the growing wage polarization is a rapid surge in inter-regional wage inequality. As shown in Table 8, in Uzbekistan wage inequality rose sharply between 1991 and 1995 when, immediately after independence, the prior policy of pan-territorial wage equalisation was abandoned. The wage differential stabilized in the subsequent years. As a result, the ratio of the average wages between the highest and lowest wage regions rose more than doubled, while the coefficient of variation rose fourfold.

Regions with low wages relative to the national average are those with a large share of agricultural activities like Namangan, Samarkand and Surkhan Darya while those with high wages –Tashkent

---

[11] In Uzbekistan, data from the Ministry of Macroeconomic and Statistics show that employment in the non-state sector reached 76 percent of the total in 2000 – while public employment fell symmetrically, from 60 to 30 percent over 1991-5 and from 30 to 24 percent over 1995-2000 ().

and Navoiy - are those with a greater concentration of industrial activities. Indeed, the recent wage polarization by region is entirely driven by the fast rise of relative wages in Tashkent and Navoiy while the relative distance among all other regions remained broadly unchanged.

Table 8: Indices on regional differentiation by the level of average wages

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Coefficient of variation	8.4	17.0	26.5	33.3	36.6	34.7	37.2	36.4	38.0	38.7
Ratio: *max* to *min* times	1.36	1.50	1.73	1.97	2.88	2.69	3.05	2.97	2.83	2.79

Source: Cornia et al (2003) on data of the State Department of Statistics of the Republic of Uzbekistan

This rise in regional wage differentiation was caused by a variety of factors, some of them reflecting objective differences in economic potential – i.e. differences in geographic, climatic, labour supply and entrepreneurial abilities of the local populations - which influence the industrial mix and skill intensity of production of each region. In most economies in transition including Uzbekistan, however, growing regional inequality reflects also the bias of public policy. This may have swung from excessive to insufficient attention to the marginal regions as suggested by the new pattern of public investments and granting of special administrative, economic and tax privileges that has benefited few urban areas and which contributed in this way to rising intra-regional wage inequality. Even anecdotal comparisons between the development of modern but costly public and private infrastructure in Tashkent and the squalor of rural infrastructure in the poor Southern region seems to confirm this hypothesis, but needs to be supported by a deeper analysis of the allocation of public investment and of the spatial aspects of industrial policy.

- The reduction of subsidies on basic foods and services. During the period 1991-95, a non-negligible share of the disposable income of all households was constituted by generalized consumer subsidies and social transfers. Between 1991 and 1993, the food subsidies on bread, flour, rice, meat, milk, tea, free breakfast in schools and food coupons for students absorbed half of the total subsidies. In addition subsidies for heating, electricity and municipal services were provided to about 50 percent of the population, while the rest had to pay for these services. Medical assistance to retired people and war veterans was also subsidized and such benefit was granted according to the all members of these groups, regardless of their income level.

The main reason for preserving such subsidies over 1991-1994 was to avoid a rapid escalation of food prices and nutritional problems during a period characterized by domestic supply shortages and dependence on food imports. In 1994-1995, however, the subsidies on foodstuff and consumer goods were abolished as they were at the beginning of 1995 the subsidies for passenger transport. As a result, while social transfers which represented 25.3 percent of the income of families in 1991 dropped to 16.8 in 1995 and 14.6 by 2000. The negative impact of such cuts was moderated by the greater targeting of other transfer, by the moderate progressivity of family allowances and the improvement of their targeting during the reforms.

The removal of consumer subsidies was accompanied by the introduction of cash subsidies. Yet, in the first years after the elimination of consumer subsidies the increase in cash payments did not compensate fully for the increase in prices, especially for the low and medium income groups.

- changes in the volume and targeting of social transfers (child allowances, unemployment benefits, pensions). Currently, the bulk of social insurance expenditures consists of financial aid to needy families, to families with children and subsidies to social services (Table 9). Even if the funds allocated to these programs may not be entirely adequate they are fairly large in relation to those of other economies of the former Soviet Union. However, their share in public expenditure, household incomes and GDP has fallen steadily, a fact that has contributed to the overall rise in inequality. Yet, because of their increased targeting, the effect of their decline on income inequality was reduced.

Table 9 Social expenditure as percentage of total government expenditure,1994-2000

	1994	1995	1996	1997	1998	1999	2000
Social insurance, total	8.9	7.9	7.5	7.9	6.6	6.3	5.7
Of which:							
Child allowances	1.1	2.5	5.8	6.5	5.9	5.8	5.4
Social assistance	1.6	1.8	1.2	0.8	0.7	0.5	0.3
Consumer subsidies and Transfers for social purpose	6.7	4.2	4.0	2.4	…	2.7	2.3
Memo items: General gov. expenditure/GDP	52.7	38.7	41.6	32.5	34.5	33.2	31.8
General gov. Deficit/GDP	-10.0	-7.3	-2.4	-3.0	-2.8	-1.2	-1.0

Source: Ministry of Finance of the Republic of Uzbekistan

The outlays on unemployment insurance remain, in contrast, quite small, as in 2000 there were only 42 thousand registered unemployed in Uzbekistan (0.4 percent of the labor force, in 2000). The reason of such low rate is that the value of the unemployment subsidy is insignificant while the administrative difficulties for registering are high. Thus, the inability of state institutions to provide adequate support to the unemployed is another factor, though possibly non a central one, in the rise in income inequality observed in Uzbekistan over the last 6-7 years.

Finally, Uzbekistan has a universal pension system under which men retire at 60 and women at 55. The pensions are paid by a Pension Fund that has an independent status from the national budget that – however – covers its shortfall in case of deficit. At present there are 3.2 million pensioners with 400 thousand of them receiving the minimum pension (Table 10).

Table 10. Evolution of the pension system

Indices	1991	1995	1996	1997	1998	1999	2000	2001
Value of average wage [a]	…	1059	2137	3589	5349	8866	10517	16641 25336
Value of average pension	373	798	1472	1927	2992	4876	7411	10909 12000
Average pension/ Average wage ratio, %	…	75.3	68.9	53.7	55.9	54.8	70.5	43.1 65.5
Minimum pension/ Average wage ratio, %		42,3	41,8	34,2	32,3	33,0	37,0	33,3
Minimum pension/ Minimum wage ratio		2,59	2,19	1,87	1,89	1,91	1,91	1,94

Source: State Department of Statistics of the Republic of Uzbekistan, UNICEF(2002), Pomfret (2001) Notes: [a] data for 2000 - 2001 do not include collective farms and agriculture

Though the efficacy of the pension system – and particularly of the minimum or low pensions - in terms of poverty alleviation has been questioned, the data in table10 suggest that pensions have broadly maintained their position in relation to wages, avoiding to introduce in this way a negative impact on overall income distribution.

5. Extent and features of poverty in 2003

The prior sections have argued that poverty rose sharply at the beginning of the transition, subsequently declined in line with the stabilization and recovery of the economy in the mid-1990s, but ten fell slowly over time because of sluggish growth and the low poverty alleviation elasticity of an increasingly more unequal pattern of growth that prioritized the capital-intensive sector and was financed through the 'squeeze' of agriculture.

Given all this, what were the extent and features of poverty in the early 2000s? An answer to this question is obviously essential for the formulation of any strategy that aims at reducing the present, still considerable, backlog of poverty. In the analysis that follows, therefore, a profile of poverty is presented with an emphasis on those features that can best suggest to the policy maker the necessary course of action to alleviate it.

(i) extent of poverty. As noted in sections 2 and 3, the 2001 PHR estimated on the basis of the Household Budget Survey by using the CER methodology was 16 percent. This estimate is however based on a very low poverty line entailing a food share for the poor of 0.82. An assessment based on common standards[12] leads instead to a poverty estimate of 25-26 percent. The evaluation carried out by the World Bank for 2000/1 on the HBS but using a poverty line and methodology different from that used by CER[13] places the national PHR in 2000-2001 at 27.5 percent.

(ii) How deep is poverty in Uzbekistan? The Poverty Gap - the average distance between the poverty line and the income of the poor – was estimated by CER on the basis of 2001 HBS at 35.4 percent. By international standards (which show average poverty gaps of 20-25 percent), such value is fairly high – suggesting that poverty in Uzbekistan entails considerable deprivation. At the same time, it is also true that, as in other economies in transition, the Uzbek 'new poor' are generally not multiply-deprived. Even in 2001 most 'income-poor' had at least 9 years of education, while 98 of them owned the house or flat where they lived, 86 percent had land plots, 87 percent have a TV set, 38 percent a refrigerator, 12 percent a car and so on. Such resources may serve a good basis for rapid exit from poverty via income growth. In other words, given these conditions, broad-based income growth ought to help the poor to exit poverty rapidly.

(iii) Is poverty permanent or transient? From a program perspective, it is essential to know whether poverty has affected over time different or the same groups of people. In the latter case, the

---

[12] This figure was obtained on the basis of a poverty line (PL) of 2916 soums per person/month with a food component of 2396,7 soums. This implies that the 'food share' (the ratio of food consumption to total consumption) of the poor was 0.82 or that PL = 1.22 times the cost of the minimum food basket ensuring the supply of 2100 calories per adult equivalent per day. Such food share is very high and differs from the internationally-adopted standards in which the non-food component of the poverty line is higher and rises in line with the level of income per capita[12]. For instance, a recent UNDP analysis of poverty in Armenia (which is substantially poorer than Uzbekistan) used a PL = 1.43 Food Cost. An appropriate level of the food component for a country such as Uzbekistan may be 0.6. This would raise the poverty line from 2916 soums/month to PL = 1.66 Food Cost or to 3994 soums/month. Assuming that the poverty rate rises in linear fashion with the poverty line, then the poverty rate would reach 21.8 If, the distribution of income is 'bunched' around the poverty line, then the poverty rate would rise to around 25-26 percent.

[13] This estimate is based on a somewhat different methodology than that used by CER, as it focuses on a food-expenditure poverty alone per adult equivalent (as opposed to the income poverty of the population), the basic consumption basket is that observed on the 2nd and 3rd decile, the non-food costs are calculated explicitly and so on.

solution of the poverty problem is far more complex. Indeed, if poverty among the new poor continues for a few years, it will likely force them to adopt unsustainable coping strategies such as the sale of their assets (land, houses and consumer durables), the withdrawal of their children from school and other strategies that carry considerable risks, gradually entrenching poverty among those who adopt them, raising the probability of its intergenerational transmission and giving rise to a class of 'hardcore poor' and to a culture of poverty and dependence. A formal answer to the question of whether poverty in Uzbekistan is mainly temporary or permanent cannot be given because of the lack of panel data, the only tool which permits to follow the income of the same person over the years.

The data above about ownership of dwellings, cars and human capital, however, suggests that such class of hardcore poor has not yet arisen to any sizeable extent. But some indications in this regard have emerged and should be seen with concern. For instance, home appliances are increasingly falling out of order, dwellings need repair, educational enrolments and health expenditures on newborn children are reduced, assets are sold. Also, increased income inequality may be a factor generating long term apathy among the poor, i.e. loss of trust that they can leave "the vicious circle" of poverty. Also, the persistence of low income does not allow to reproduce the prior material and educational basis of the welfare of those who became poor since the onset of the transition. Once poverty is entrenched, a significantly larger amount of resources will be needed for its eradication.

(iv) Who are the poor? Hereafter we sketch the main characteristics of current poverty in Uzbekistan, as indicated by the 2000-2001 survey:

- demography and poverty. In many countries, poverty is often due to demographic factors. This is only partially the case of Uzbekistan, however. For instance, as suggested by Table 11, household size is not significantly greater among the poor than the non-poor. The same applies to disability, the share of elderly and children in the total number of household members (in the rural sector), dependence on minimum pensions and the dependency rate (the share of able bodied people in the household). All these variables are not significantly higher among the poor than the non- poor.

However, poor households appear to be distinguished by two main features: a higher number of children per family and lower activity rate (last line of Table 11) in both rural and urban areas. For instance, while the poor rural households have 5.4 (young, middle age and old) dependents for each person with a regular income, for the non-poor such ratio falls to 2.9. All this suggests that either the child allowance system does not reach all families with 3 or more children or that the subsidy provided is not enough to lift the family to which they belong out of poverty. It means also that poverty is associated to considerable inactivity or part time employment among active adults, a problem that can be addressed by means of labor market policies raising the level and quality of employment among the poor.

Table 11: Demographic features of poverty in 2001

	Rural			Urban		
	All	Poor	Non Poor	All	Poor	Non Poor
1.HH Size (N)	5,9	6,3	5,8	4.6	5.8	4.5
2.Share of children (0-16) in total n. HH members	40,4	45,6	39,2	35.2	**43.2**	**33.8**
- share of HH with 0-2 children	53,8	**39,6**	**56,8**	73.7	**48.6**	**77.0**
- share of HH with 3-4 children	40,3	**49,4**	**38,4**	23.3	**44.4**	**20.5**
- share of HH with > 4 children	5,9	**11,0**	**4,9**	3.0	**7.0**	**2.5**
3. Share of adults 16-60 unable to work (invalids, chronic invalid and disabled) *	1,4	1,0	1,5	1.9	1.9	1.9
4. Share of able bodied adults (16-60)*	51.2	49.2	51.6	52.5	50.2	52.9
5. Share of elderly in number of HH members*	7.1	4.2	7.7	10.4	**4.7**	**11.3**
6. N.of dependents per person with regular income	3,2	**5,4**	**2,9**	2.3	**4.0**	**2.2**

Source: Cornia et al (2003); Notes: women are considered able bodied up to 55 of age.

- **Employment, income transfers and poverty**. The above insights about poverty being dependent on irregular employment and under-employment rather than on unemployment are confirmed by Table 12. As noted, at 0.4-0.5 percent, the registered unemployment rate in Uzbekistan is remarkably low. Even when applying the ILO definition, it rises to 4 percent, still low by international standards. Indeed, unemployment is not the primary concern of the poor. As shown in Table 12, underemployment and low wages are their main problem. Underemployment takes the form of part-time work, full-time work at low intensity and productivity, or full-time employment with low-productivity because of lack of skills, inputs or investments. But low wages-remunerations obtain also in high intensity jobs that produce goods that fetch artificially low prices, or in case of intense competition among job-seekers for few available jobs. Much underemployment of one kind or another is in agriculture, where low wages depend on the bad terms of trade of agriculture but also on low investment and productivity. Low paying and insecure jobs are common also in the informal sector, among contract workers in the construction sector, street vendors and small service providers. Here too the problem is low productivity because of inadequate investments and inputs. The problems of underemployment and job informality have been compounded by the low (0.3-0.4) employment elasticity of growth that prioritized capital-intensive industries instead of labor-intensive sectors. In contrast, the growth of small and medium enterprises, which tend to be more labor-intensive, was slow.

Table 12. Employment and incomes of the poor and non poor

	Rural			Urban		
	All	Poor	Non Poor	All	Poor	Non Poor
1.Share of able bodied HH who are						
- employed in the formal sector	46,1	35,6	48,4	52,3	**33,7**	**55,4**
- employed at wage < 2*min wage	38,4	**65,1**	**34,2**	14,2	**42,3**	**11,5**
- employed but affected by wage arrears	23,8	**34,0**	**22,2**	7,2	**17,4**	**6,2**
- with only one job	98,8	99,1	98,8	98,7	99,4	98,6
- with more than one job	1,2	0,9	1,2	1,3	0,6	1,4
- un/underemployed (working <10 hrs a week)	12,4	15,4	11,9	7,4	**11,9**	**7,0**
- employed in agriculture	39,7	49,3	38,2	….	….	….
2. Share of total household income generated by:						
- wages and salaries	21,7	28,8	21,4	40,7	40,1	40,7
- entrepreneurial and property income	7,8	**2,9**	**8,0**	14,6	9,5	14,7
- social transfers	13.4	**28.3**	**12.7**	17.7	**36.4**	**17.0**
- income in kind	30,9	32,4	30,8	….	….	….
- sale of agricultural products	23,0	**5,0**	**23,9**	….	….	….
- property income	0.7	0.1		0.7	0.1	

Source: Cornia et al (2003) on HBS 2001 data

Table 12 confirms also the poor depend on transfers much more than the non-poor while at the same time they generate much less entrepreneurial income and income from the sale of agricultural products, possibly suggesting that – in addition to personal characteristics – lack of credit and fertile land or distance from markets reduce the opportunity to generate such kind of income.

- rural versus urban poverty. As in most transitional and developing economies, also in Uzbekistan rural poverty is significantly higher than urban poverty, as confirmed by Table 13, which shows that the rural PHR is 30.5 percent as opposed to a urban PHR of 22.5 percent. Such difference seems relatively low when compared with that of developing countries with similar income per capita[14]. One factor that has helped containing rural poverty might be the widespread ownership of plots used to satisfy most of the food needs of rural families.

This said, the fact remains that some 70 percent of poverty in Uzbekistan is a rural phenomenon. This is even more so in the case of extreme poverty, 72 percent of whom are residents of rural areas, making rural Uzbekistan the principal focus of any serious poverty reduction programmes, a policy issue that has to be squarely address in the years ahead. Indeed, despite its socialist past, Uzbekistan has not escaped the 'urban bias' of public policy, a bias that leads to the allocation of a disproportionate share of public expenditure, credit, foreign exchange, private investments and other scarce resources to urban centers, Tashkent in particular. Even a brief field visit to the rural areas reveals immediately the huge – and apparently growing – infrastructural and investment gap between relatively prosperous Tashkent and poor rural areas. Without correction of such bias of public policy and private investment, it is unlikely that even sustained aggregate growth will make much of a difference to the rural poor.

Table 13. Socio-economic profile of the poor by location and level of education

Characteristic	Incidence of poverty	Incidence of extreme poverty	Share of population	Share of the Poor	Share of extreme poor
1. Location					
Urban	22.5	7.1	37.4	30.6	27.4
Rural	30.5	11.2	62.6	69.4	72.3
National	27.5	9.7	100.0	100.0	100.0
2. Education of Household Head					
0-4 years	34.0	….	8.4	10.4	….
5-9 years	32.4	….	13.3	15.7	….
Secondary	31.3	….	47.4	53.9	….
Incompl.Technikum	24.6	....	2.8	2.5	....
Compl technikum	17.6	....	13.4	8.6	….
Higher education	16.6	….	14.7	8.9	….
National	27.5	…	100.0	100.0	….

Source: World Bank (2002)

- level of education, human capital and poverty. In many developing countries, the level of education of the head of the household is the main predictor of the risk of poverty. This is not the case in Uzbekistan, where – as shown in Table 13 - people living in households whose head has completed even the general secondary school (for a total of 9-12 years of education) have a risk of poverty that is higher than the national average and that does not significantly differ from that of those living in households with less education. Only people from families where the head has a higher level of education experience lower levels of poverty. What explains this unusual finding?

---

[14] In Latin America the rural PHR can be twice as large the urban one. Even in other economies in transition, including in Central Asia, the urban-rural PHR differential is higher.

These results may suggest that the labor market demands only few workers with higher education, or that the demand for secondary graduates concerns skills different from those offered by the graduates of secondary schools or that there is a large supply of working age adults with secondary education relative to employment opportunities for workers with that degree of skills. Indeed, one of the problem with the present growth pattern was its inability to generate a sufficient demand for medium skilled workers.

- access to land and rural poverty. As seen in Table 13, 69.4 percent of the poor are located in rural areas an so is 72 percent of the ultrapoor While not all of them depend on agriculture, some two thirds of them are engaged in agricultural tasks within a variety of farms. What then explains the widespread poverty among them?

Access to the land does not seem to be the key distinguishing factor, though the poor own on average smaller amounts of land that the non-poor and though a higher number of them owns farms of less than 10 sotok. Land quality might be a problem, but the above data do not allow to draw any conclusions in this regard. Meanwhile, the poor cultivate a significantly lower share of their land than the not-poor (Table 14, item 3), spend less than the non-poor on business inputs (a fact that results in low yields), assign a lower share of their land to the cultivation of cash crops and use most of their land for the cultivation of subsistence crops. These results and those about the 'low quality' of employment of the rural poor, suggest that much of rural poverty is constituted by people with low-paying jobs and owning small amounts of land that is not fully used - either for its low quality or because of lack of credit and inputs – for market production.

Table 14. Access to the land and output markets and rural poverty

|	All	Poor	Non Poor
1. % of households with land	97,3	95,1	97,8
- average size of lands, sotka	24,9	22,7	25,4
2.Including households available plot squares (in % to available)			
- < 10 sotok	29,9	**37,3**	**28,4**
- from 10 to 15 sotok	26,2	22,2	27,0
- from 15 to 25 sotok	34,0	32,8	34,2
- > 25 sotok	10,0	7,7	10,4
3.Land uncultivated or occupied by buildings, % of total land	38,0	**53,4**	**35,3**
4.Use of agricultural output from plots, %:			
- for internal consumption by the household	54,1	63,7	52,4
- for internal consumption by the household and for sale	27,9	**16,8**	**29,9**
- for sale	7,0	**1,2**	**8,0**

Source: Cornia et al (2003) on HBS 2001 data

6. Conclusions: the growing problems of the import substitution industrialization strategy.

The development strategy pursued since 1995-6 represent an interesting experiment that has produced appreciable results – a stable macroeconomy, moderate but steady growth, an acceptable capital accumulation, some initial export diversification and so on. Together with the 'heterodox stabilization' of the years 1991-5, the Uzbek policy model represents an original second best approach well suited to the specific conditions of an economy in transition lacking markets and institutions and being hit by severe exogenous shocks. At the same time, this approach is becoming increasingly sub-optimal as it does not permit to maximize output growth and poverty reduction under the new more favorable circumstances. The specific limitations of this approach are discussed below:

While Uzbekistan's past growth performance has been superior to that of all countries of the former Soviet Union, the data for the last four years point to the opposite situation (Figure 5). Also, while the 2002 GDP index of Uzbekistan was still higher than that of Kyrgystan and Kazakhstan, given the present growth differentials this will no longer hold in only a few years. Even when considering the welfare outcome for the entire transition period, if things do not change, one will soon reach a point (when the B triangle will be bigger than the A area in Figure 4.2) in which the overall transition performance in Kazakhstan-Kyrgystan will be superior. Thus, slower growth than in the neighboring countries will affect negatively the pace of poverty reduction.

Figure 5 Stylized representation of the index of GDP/c (1991=100) of Uzbekistan (light line) and Kazakhstan-Kyrgystan (dark line) during stabilization and recovery
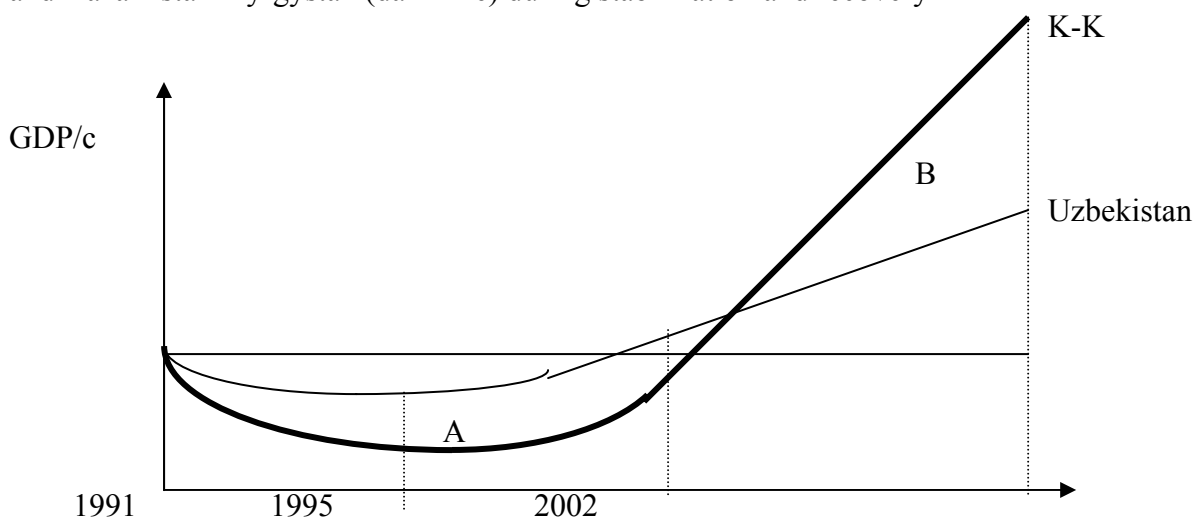
Some of the policies adopted since 1995 are responsible for this sub-optimal growth. For instance, the slow transformation of agriculture towards a smallholder economy sacrifices incentives, prevents the absorption of surplus labor and perpetuates an uneven distribution of income. Likewise, in some sectors, the import substitution experiment seems to have failed and needs to be rectified or discontinued so as to reallocate the resources invested therein to other sectors. And so on. The key point is that changes in some current policies can lead to an acceleration of growth without having to abandon wholesale the Uzbek policy experiment.

The second problem of the present strategy is that it has led to a very skewed distribution of income. While the increase in inequality during the difficult years of price liberalization and macroeconomic stabilisation was moderate, the surge recorded during the more favorable years 1995-2001 was far greater. Such increase was due more to policy choices than exogenous shocks and conflicts with the government's stance in the field of social protection, income transfers and social policy. Indeed, the distributive distortions caused by the over taxation of agriculture and the priority accorded to a high-wage, capital-intensive import substituting sector and other policies have more than offset the redistributive effect of declining but still comparatively generous minimum pensions, child allowances and mahallas-administered social assistance. High inequality not only is a key determinant of poverty but, beyond a certain threshold, tends to affect as well microeconomic incentives, labor supply and economic efficiency. In this sense, the high inequality of the Uzbek economy might have exceeded the level beyond which growth become sluggish.

Because of this effects, the nature of poverty in 2001 appeared to be characterized by the following features that the policy maker needs to take into account in designing adequate anti-

poverty policies and programmes: (a) low activity rates among adults in both rural and urban areas, meaning a high prevalence of underemployment, part time employment, unemployment or exit from the labour force; (b) significantly lower chances of being employed in the formal sector, and higher chances of being underemployed (especially in the urban areas) and of receiving a very low wage paid with long arrears; (c) lack of university education. As many adults have a secondary school diploma (9 years), the level of education is not closely associated with poverty. Only people with upper secondary or higher education experience lower levels of poverty, suggesting that there is a large supply of working age adults with secondary education relative to employment opportunities for workers with that skills; (d) more than three children per family, an indication that child allowances either does not reach all families or that they are not enough to lift the families with many children out of poverty. More generally, the poor depend more on transfers than the non-poor while earning less income from entrepreneurial activities and the sale of agricultural products, possibly because of lack of credit and fertile land or distance from markets; (e) lower access to land of good quality and inputs; (f) the rural poor appear also to be less integrated in the market economy, as they cultivate a lower proportion of their land than the non-poor, spend less than the non-poor on inputs, assign a lower share of their land to cash crops and use most of their land for subsistence crops. These results suggest that much of rural poverty is constituted by people – like many shirkats workers - with low-quality, low-paying jobs and owning small amounts of land not fully exploited for market production either for its low quality or because of lack of credit and inputs.

Bibliographical references

-CER (1997) «Methodological approaches to determination of poverty threshold in Uzbekistan" Center for Economic and Social Research , Tashkent, August 1997.

- CER (2002) Consultants Report, for the preparation of the study on 'Macroeconomics and Poverty', CER, Tashkent 2002

-Codouel, Aline, Sheila Marnie and John Micklewright (1998)','' Targeting Social Assistance in a Transition Economy: The Mahallas in Uzbekistan', Innocenti Occasional Paper EPS 63, UNICEF-International Child Development Centre, Florence

- Cornia, Giovanni Andrea (1996), "Transition and Income Distribution: Theory, Evidence and Initial Interpretation", *WIDER Research in Progress*, No.1, UNU/WIDER, Helsinki.

- Cornia, Giovanni Andrea and Vladimir Popov (2001), "Transition and Institutions: the Experience of the Gradual and Late Reformers", Oxfrod University Press, Oxford.

- Cornia, Giovanni Andrea, Nasretdinkhodjaev Zavikhulla, Artur Tuktarov and Yulduz Abduganieva (2003), 'Trends in Poverty, Inequality and Human Deprivation', Chapter 3 of the UNDP report "Growth and Poverty Reduction in the Years Ahead:a Report to the Government of Uzbekistan" edited by Giovanni Andrea Cornia, Tashkent, October 2003.

- EBRD (2002), ' Transition report 2002: Agriculture and rural transition', European Bank for Reconstruction and Development, London.

- Fleming, and John Micklewright (1999),'Income Distribution, Economic Systems and Transition', *Innocenti Occasional Papers, EPS70,* UNICEF International Child Development Centre, Florence.

- Griffin, Keith (1996) «Poverty in Uzbekistan», UNDP, Tashkent.

- IMF (2000), 'Republic of Uzbekistan: Recent Economic Development', the IMF, Washington.

- Kotz, David M. (2003), 'The Record of Economic Transition in Uzbekistan' Chapter 1 of the UNDP Report on Macroeconomics and Poverty in Uzbekistan

- Muller Catharina, (2003)

- Pomfret, Richard (2001), 'Reform Paths in Central Asian Transition Economies' in Giovanni Andrea Cornia and Vladimir Popov (eds.), ?Transition and Institutions: the Experience of the Late and Gradualist Countries', Oxford University Press, Oxford.

- Ravallion, Martin (2001) 'Growth, Inequality and Poverty: Looking Beyond Averages', paper presented at the UNU/WIDER Conference on Growth and Poverty, 26-26 May 2001, Helsinki.

- Stiglitz, Joseph (1998), 'More Instruments and Broader Goals: Towards a Post-Washington Consensus', WIDER Annual Lecture Number 2, UNU/WIDER, Helsinki.

- UNDP(2000) 'Human Development Report, Uzbekistan 2000', UNDP and CER, Tashkent

- UNICEF (2002), 'The regional transition report', ICDC Florence
- Vecernik, Jiri (1994), "Changing earnings inequality under the economic transformation: the Czech and Slovak Republics in 1984-92", mimeo, Prague.

- World Bank (1994), *Poverty in Poland*, World Bank Report No.13501-PO 14 September, Washington DC

- World Bank (2002), 'Poverty Report on Uzbekistan', Tashkent