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The Nexus of Economic Growth, Employment and Poverty during Economic Transition: An Analysis of Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan

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Preface

The experience of countries which have succeeded in reducing poverty significantly, indicates the importance of sustained high growth in achieving this result. However, studies on poverty are replete with an equally important finding; that high growth alone is not a sufficient condition for achieving poverty reduction. The nature, pattern and sources of growth as well as the manners in which its benefits are distributed are at least equally important from a poverty reduction point of view. From this perspective productive and remunerative employment assumes a central role in making economic growth pro-poor.

In view of this importance of employment as a route out of poverty, the ILO is in collaboration with SIDA and UNDP undertaking a series of country studies to examine the linkage between economic growth, employment and poverty reduction. The present study of six transition countries; Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan forms part of that series. The main purpose of the paper is to contribute to an understanding of the growth, employment and poverty nexus during economic transition, by examining in particular how the recent recovery in economic growth has affected unemployment, wages, poverty and inequality levels in these countries.

With the collapse of the Soviet Union at the beginning of the 1990's the countries of Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan were amongst the twenty-six countries that embarked upon a process of transition from planned to market-oriented economies. The six countries started the transition from significantly different initial points in terms of human development, structural composition of their economies and the type of transition strategy chosen. Despite these differences, the economic and social costs of the transition process have been more or less similar including declining outputs, rising unemployment, falling wages, and increasing levels of poverty and inequality.

In all of the six countries, economic growth declined significantly during the initial years of the transition and in some countries the growth rates have only become positive and stable towards the end of the 1990's. The enormous declines in output led to substantial increases in poverty levels throughout the region, whilst the recent revival in economic growth rates has led to decreasing poverty only in three of the six countries. This can partly be explained by the existence of a number of factors, which determine how economic growth affects poverty. One such factor is the distribution of income as indicated by the level of income inequality.

Labour market factors such as employment and wage levels are also extremely important variables in determining the relationship between economic growth and poverty, and more importantly, in determining whether growth is 'pro-poor'. As output declined in the beginning of the 1990's, the structure of employment changed, unemployment levels rose, and wage levels fell, yet the resumption of economic growth has not led to a general fall in unemployment levels, which partly explains the persistence of poverty in the region.

Thus there appears to be a clear and direct link between a fall in economic growth and a rise in poverty levels, whereas the reverse link between an increase in economic growth and a decrease in poverty is less clear. Through a thematically based country-by-country analysis this paper explores the reasons for why high economic growth has succeeded in reducing the incidence of poverty in some countries and not in others. The paper concludes that from a poverty reduction perspective, economic growth must be employment-intensive, which will lead to higher labour productivity and rising incomes and thereby reduce the level of poverty.

The implication of this finding is that growth needs to take place in the high-productivity sectors of industry and services. However, in the case of transition countries in general, this might be easier said than achieved given the legacy of state controlled industries and services and the fact that although the process of privatisation has progressed relatively well in some countries, the private sector still plays a weak role in economic activities that could simultaneously contribute to growth and employment.

In addition, given that a significant amount of those who are employed are also poor – the so-called 'working poor', employment-intensive growth alone is not sufficient in achieving significant and sustained reduction in poverty. Policy makers must also be concerned with whether the poor have the necessary skills and access to assets, resources and services enabling them to benefit from whatever growth in employment may occur. This will involve focusing on the 'informal economy', which, given the virtual collapse of the formal sectors, has assumed significant importance in many transition economies.

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1. Introduction

At the beginning of the 1990's twenty-six countries ranging from Central Europe to Central Asia embarked upon a process of economic transition from planned to market-oriented economies. The socio-economic implications of the transition included enormous declines in economic growth, employment and wage levels and significant increases in poverty and inequality. However the extent and severity of these factors have varied considerably across the countries depending amongst other factors on the initial conditions in the countries and the type of transition path and reform programme adopted. Today, more than a decade after the start of the transition process, it is clear that in terms of economic, political and social progress, the countries of Central and Eastern Europe and the Baltic states have generally performed better than the countries of the Commonwealth of Independent States (CIS).

Although extremely different in most aspects, one feature that the CIS countries of Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan share in common is that they were created to form integrate parts of a larger economy, namely the Soviet Union. Given that prior to 1991 they had no history as separate, independent countries, it is quite astonishing that these six states have managed to remain intact given the severe economic, political and social repercussions of the break-up of the Soviet Union. In 1991, after decades of Soviet rule, these countries suddenly found themselves independent, yet suffering from distorted economic structures and loss of main export markets. In addition, national and regional conflicts have slowed the task of finding new suppliers, new production patterns and new markets as well as hampering progress on the political and human development fronts.

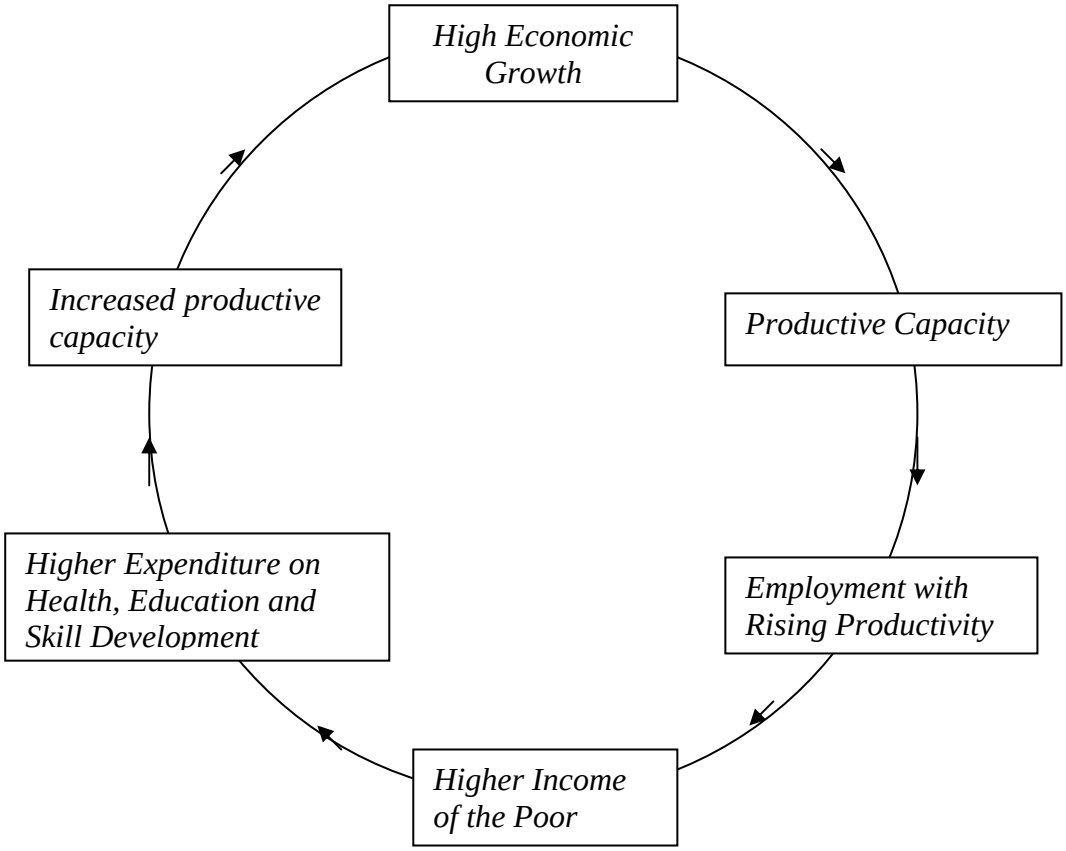
Under the Soviet Union's guaranteed state employment scheme there was no official open unemployment (although at the expense of low wages and overstaffing). Moreover, access to education and health services was universal and the relatively generous system of pensions, family allowances, sick pay, maternity benefits protected households from major income shocks. This system of social provision underlies the strong achievements in the field of human development so characteristic of the countries of the former Soviet Union and ensured that the majority of the population was able to satisfy basic needs. Nevertheless, although not referred to in broad discussions and general research, poverty did indeed exist in the former Soviet Union and if addressed was referred to as 'neediness' rather than 'poverty'.

While there was an awareness of some of the social costs that would be involved in the process of economic transition, the enormous declines in output and incomes, which have caused unprecedented levels of unemployment and subsequent rises in poverty and inequality, were hardly anticipated. According to the 1998 Report of the Regional Bureau for Europe and the CIS, no region in the world has suffered such reversals in development during the decade of the 1990's as have the countries of the former Soviet Union. Fortunately, the existence of widespread un- and underemployment and poverty is now officially accepted and these issues are being addressed by a variety of international organisations as well as national governments in their poverty reduction strategy papers and development strategies in general.

In addition to starting the transition process from different levels of development, the six countries examined in this paper have embarked on significantly different political and economic journeys in dealing with the post-Soviet transformation. Other than exacerbating regional tensions, this has also meant that the contrasts between the countries, especially with regard to political and human development, have been and remain quite striking. Apart from the setback due to the financial turmoil in Russia in 1998, economic growth has by now

picked up in all of the six countries considered in this paper. However, it is less clear whether this economic recovery has been matched by an improvement in social conditions in terms of falling unemployment, poverty and inequality levels and/or rising wages.

It is commonly acknowledged that productive employment constitutes the main link between economic growth and poverty. In other words high economic growth which leads to a sustained increase in productive capacity will generate employment opportunities with rising productivity allowing the unemployed and/or poor to increase their incomes either in existing occupations or shift to new occupations involving higher level skills. In turn, reduced poverty will increase the productive capacity of the future workforce through increased education and skills formation, creating the necessary conditions for achieving higher levels of economic growth, completing the virtuous circle as illustrated below[1]. Against the background of this framework, the current paper examines the growth, labour market and poverty trends during the transition period and aims, in particular, to assess how the recent recovery in economic growth has affected unemployment, wages, poverty and inequality levels in the countries of Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan.



[1] A similar diagram has been used in Islam, R. (2003) *Employment Poverty Linkages: A Cross-Country Analysis*, Recovery and Reconstruction Department, ILO.

Structure of the Paper

Following the introduction and a brief section on the sources of data used in the paper, section two provides an outline of the basic characteristics of the six transition economies during the 1990's consisting of trends in GDP per capita and human development, structural composition of the economies as well as the pace and progress in reform. Section three analyses the countries' economic growth trends since independence whilst section four provides an overview of poverty and inequality trends. Section five examines the movements in labour market trends during transition focusing on unemployment and wage levels and section six attempts to analyse the growth, employment and poverty linkages in the six countries by drawing upon and linking the previous sections. Finally section seven summarises the main findings and provides some lessons to be drawn from the experiences of the six countries.

Sources of Data

Due to the transition countries' history (or lack of it rather) as described in the introduction, data for these countries is generally less available than for other regions of the world and as a result, this paper has had to rely on a variety of different sources. For the data on GDP per capita, human development, economic growth, sectoral composition of the economy and progress in reforms, general sources such as the European Bank for Reconstruction and Development (EBRD), the World Bank and the United Nations Development Programme (UNDP) have been used. The poverty and inequality data has been collected either from national sources or from other sources (such as the Asian Development Bank (ADB) or UNDP), which are based on national household surveys. This means that the poverty incidences (in table 4.1) are estimated according to national poverty lines as opposed to international poverty lines (e.g. US$ 1 a day). Whilst providing a more accurate picture of the poverty situation in the individual country in relation to the cost of living, the use of national poverty lines makes comparisons across countries a difficult task. For the unemployment and wage data, the ILO Labour Statistics Database and Key Indicators of the Labour Market (KILM) have been used (both are based on official sources) along with the EBRD Transition Report and other sources including the ADB and the Economist Intelligence Unit (EIU).

In addition to the problem of availability, data on transition countries in general also suffers from the problem of reliability[2]. For instance, with regards to data on the sectoral composition of GDP and employment, it is often based on so-called 'establishment surveys', covering only large enterprises whilst omitting small enterprises and the informal sector in general. Moreover the unemployment data from the EBRD Transition Report appears to be a mix of figures on registered unemployment and figures from Labour Force Surveys presented without any clarification mark. Furthermore, it should be noted that international comparisons, based on already unreliable data, is unlikely to be an easy task. For instance, in some countries that have undergone land reforms, landholders are automatically counted as farmers although they may rent the land and work elsewhere or produce nothing for the market, whereas in other countries these landlords will not be categorised as employed labour. Such shortcomings of data in combination with generally poor availability should be kept in mind when reading this paper. In particular, the analytical part of the paper (section six), which is based almost entirely on the available data, should be regarded as a tentative analysis rather than a definite assessment of the growth, employment and poverty nexus.

[2] The author is grateful to Mrs. Nesporova for highlighting this important issue.

2. Basic Characteristics of the Six Transition Countries

i. GDP per Capita and Human Development

Prior to the collapse of the planned system, a 'needy' person in the Soviet Union was defined as one with an average monthly income below 75 Rubles (equal to US$ 117 at the 1989 official US$/Rubles exchange rate). According to this criterion, in 1989 16.3% of workers and civil servants, 27.6% of collective farmers and 11% of the total USSR population could be classified as 'needy' (UNDP, 2000: 4). Naturally, these groups were unevenly distributed across the Soviet Union, with the largest share of 'needy' citizens living in the Republics of Central Asia and the smallest share living in the Baltic States. Table 2.1 below shows the percentage of the 'needy' population prior to independence in the six transition countries examined in this paper. Amongst these countries, Tajikistan was the most 'needy' with more than half of its population falling into this category, compared to a 'mere' 11.8% in Moldova.

Table 2.1: Percentage of the Population with a Monthly Income below US$ 117 in 1989

Country	Percentage
Armenia	14.3
Kazakhstan	15.5
Kyrgyzstan	32.9
Moldova	11.8
Tajikistan	51.2
Uzbekistan	43.6

Source: UNDP (2000)

Whereas the above table considers monthly incomes, GDP per capita figures are usually computed on a yearly basis and should for accuracy and purposes of comparison be adjusted to the relative cost of living in each country. As illustrated in table 2.2, since the beginning of the transition process, GDP per capita at purchasing power parity (PPP) has fallen in all of the six countries and has by 2002 recovered to above the 1991 level only in Armenia and Kazakhstan. In Kyrgyzstan, GDP per capita has picked up somewhat since the mid-1990's, and is approaching the 1991 level, whereas in Moldova and Tajikistan the per capita income level in 2002 remains around half of the 1991 level. Unfortunately, in the case of Uzbekistan the lack of data for the initial years of the transition process makes it difficult to assess the relative situation in 2002, yet since the mid 1990's GDP per capita has risen gradually.

Table 2.2 GDP per capita, PPP (current international $)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Armenia	2679	2349	1714	1470	1473	1655	1792	1874	2000	2152	2338	2598	2957
Kazakhstan	4701	4264	4266	3871	3492	3370	3452	3558	3513	3813	4565	5225	5769
Kyrgyzstan	2010	1872	1651	1428	1180	1144	1217	1335	1349	1427	1546	1598	1572
Moldova	3089	2662	1962	1973	1396	1429	1308	1341	1251	1238	1278	1346	1431
Tajikistan	1909	1765	1275	1077	862	793	665	644	666	707	795	850	916
Uzbekistan	n/a	n/a	n/a	1321	1250	1258	1272	1318	1336	1404	1502	1561	1611

Source: World Bank, WDI 2003.

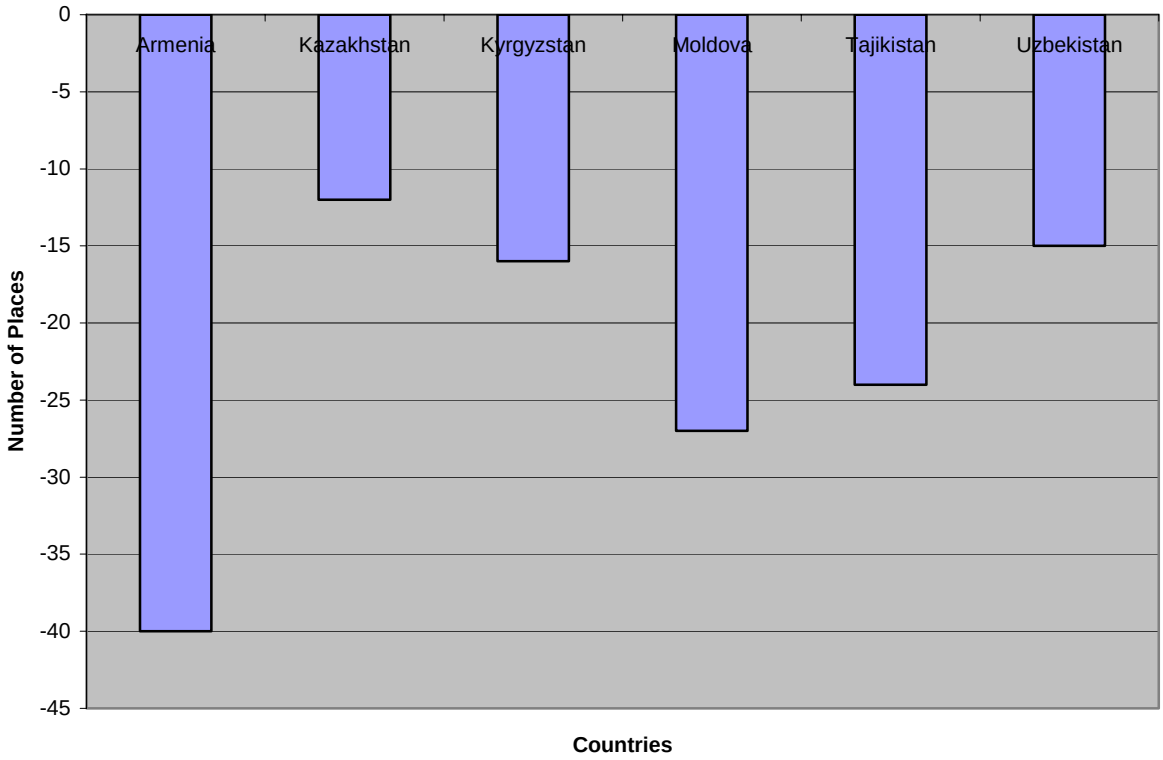
Although GDP per capita is a good indication of the extent to which a country's population is able to meet basic needs in terms of food, shelter and clothing, a more comprehensive measure is needed in order to capture the multi-dimensionality of human development. The UNDP's Human Development Index (HDI) provides such a measure, ranking a total of 175 countries according to their performance in a number of areas including life expectancy, literacy rate and educational level in addition to GDP per capita. Figure 2.1 below illustrates the number of places that each of the six countries has dropped in HDI ranking from 1991 to 1999. According to this figure, Armenia has experienced the largest drop by 40 places, and Kazakhstan the smallest drop by 12 places. However, despite such a drastic drop over a period of eight years, Armenia's ranking remains higher in the 2003 Human Development Index (see table 2.3) than any of the other countries, with the exception of Kazakhstan. At the other end of the scale Tajikistan is ranked the lowest of the six countries, preceded by Moldova, Kyrgyzstan and Uzbekistan in that order.

Table 2.3: Human Development Ranking in 2003

Country	HDI Ranking
Armenia	100
Kazakhstan	76
Kyrgyzstan	102
Moldova	108
Tajikistan	113
Uzbekistan	101

Source: UNDP (2003).

Figure 2.1: Drops in HDI Ranking from 1991-1999



Source: UNDP Human Development Reports, various years.

Although the above does not constitute a complete picture of which of the six countries has suffered the most and the least (in humanitarian terms) from the transition process, it provides some indication. In 2000, Tajikistan was the country with the lowest GDP per capita, yet the country's drop in HDI ranking was not as significant as Moldova's or Armenia's. Of these two, the formers' GDP per capita has fallen from a relatively high level in 1990 to a very low level in 2000, whilst the latter's drop in HDI ranking is by far the highest. On the other hand, one should keep in mind that Armenia's HDI ranking prior to transition was significantly higher than both Moldova's and Tajikistan's. At the other end of the scale, Kazakhstan has by far the highest GDP per capita (PPP) in 2002, has experienced an average GDP per capita growth rate of 7.5% from 1997-2001 and as a high as 13.4% in 2001 (EIU Kazakhstan CP, 2002: 27) and has suffered the lowest drop in HDI ranking from 1991 to 1999. On this basis, it seems that Kazakhstan has suffered the least and has recovered most amongst the six countries, at least in terms of the well-being of its population. The following two sub-sections will offer further insight into other basic characteristics of the six countries.

ii. Structure of the Economy

According to Rostow's model of the stages of economic development, as a country develops, its economic structure evolves from being dominantly agricultural to mainly industrial and eventually to being services oriented. In the case of an economic contraction, one would assume the reverse structural shift to occur and to a certain extent this is what has happened in the CIS countries following the substantial decline in output as a result of the transition process. As illustrated in table 2.4, all six countries experienced a fall in the GDP share of industry, and in some cases, the fall continued despite the resumption in growth. As for agriculture, there appears to be no general trend, with some countries having experienced an increase in the GDP share of this sector, others a decrease and in some, the share has remained more or less constant during the 1990's. With regards to services, all the countries have experienced a significant rise, due primarily to the increase in informal service activities.

The Importance of the Agricultural Sector

Particularly during the initial years of the transition process, the structure of Armenia's economy shifted sharply from an emphasis on heavy industrial production to agricultural activities and services. This can be explained to a certain extent by the relative success of the land reform programme, which Armenia, as the first former Soviet republic, embarked upon in 1991. By late 1993 approximately 90% of the agricultural land had been transferred to private ownership boosting agricultural output by around 15% (EIU Armenia CP, 2002: 66). An additional and perhaps more realistic explanation of the increasing GDP share of agriculture during the beginning of the 1990's is that the agricultural sector was the only sector which functioned following the economic collapse (which in addition to the loss of Soviet markets was worsened by the conflict with neighbouring Azerbaijan). On this basis, and given the lack of export markets as a result of the collapse of the Soviet Union, one would be mistaken to interpret the rising share of agriculture as a rise in productivity in the sector.

In contrast to Armenia, in Kazakhstan, the share of agriculture has fallen consistently during the 1990's partly as a result of poorly implemented privatisation resulting in inadequate land reforms and scarcity of fuel, fertilisers and spare parts for agricultural machinery. Moreover, the absence of proper freehold rights for land as a result of current legislation has severely curtailed private land ownership hampering the emergence of a properly functioning land market (EIU Kazakhstan CP, 2002: 28). In addition, natural constraints such as Kazakhstan's unpredictable climate have played a significant role in the dismal performance of the sector.

Table 2.4: Sectoral Composition of GDP (in percentages)

	1990	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Armenia													
• Agriculture	17	25	31	51	45	42	37	32	34	30	25	28	26
• Industry	52	49	39	27	37	32	33	33	31	32	36	34	33
• Services	31	26	30	22	18	26	31	35	35	38	39	38	41
Kazakhstan													
• Agriculture	n/a	n/a	27	18	15	13	13	12	9	11	9	9	9
• Industry	n/a	n/a	45	39	40	31	27	27	31	35	43	39	43
• Services	n/a	n/a	29	43	45	56	60	61	60	55	48	52	48
Kyrgyzstan													
• Agriculture	34	37	39	41	41	44	50	43	40	38	39	37	39
• Industry	36	36	38	32	26	20	18	22	23	27	26	28	26
• Services	30	28	23	27	34	37	32	36	38	36	34	34	35
Moldova													
• Agriculture	31	43	51	33	29	33	31	30	31	28	28	26	25
• Industry	39	33	32	44	38	32	31	29	24	19	20	24	24
• Services	30	24	18	24	32	35	38	41	46	53	52	50	51
Tajikistan													
• Agriculture	33	38	27	23	24	38	39	35	27	19	19	29	n/a
• Industry	38	38	45	46	41	39	31	27	26	25	26	29	n/a
• Services	29	25	28	30	35	23	30	37	47	57	55	41	n/a
Uzbekistan													
• Agriculture	33	37	35	30	37	32	26	32	31	34	35	34	33
• Industry	33	37	36	35	26	28	31	26	26	25	23	23	21
• Services	34	27	29	35	36	40	43	42	43	42	42	43	46

Source: World Bank, WDI (2003).

Kyrgyzstan is one of the most agricultural and least industrial of all the former Soviet Republics, in fact the total output share of agriculture is significantly higher than in any of the other countries represented in this paper. Moreover, this share has remained more or less constant throughout the transition period and in 2000 agricultural production even exceeded the levels recorded at the time of independence (EIU Kyrgyzstan CP, 2002: 24). Moldova was traditionally one of the Soviet Union's most important sources of agricultural goods and the sector remains important for the economy as indicated by the more or less constant 30% share of agriculture in total output. Moreover, agricultural reforms have been relatively successful in Moldova; when the first phase of the land programme was completed in October 2000, the private sector owned close to 100% of all farming (EIU Moldova CP, 2002: 69).

Tajikistan is traditionally a rural and agricultural society, based on cotton monoculture, yet since independence cotton output has remained on a downward trend (EIU Tajikistan CP, 2002: 60). Moreover, the restructuring of the agricultural sector has been a slow process and combined with recent years of drought this has presented a major constraint on cotton output. Similarly in Uzbekistan, the world's fifth largest producer of cotton, the sector has suffered mainly due to failed attempts at land reforms and the fact that the country still operates under the old Soviet system of compulsory state purchasing, known as the '*Gozszakav*'. The prohibition of land ownership means that there is no land market, and leasehold rights although legally permanent and inheritable, can be curtailed by the considerable discretion that local authorities have over the rights of farmers (EIU Uzbekistan CP, 2002: 28).

The Decline of the Industrial Sector

Industry was the most important sector in Armenia during the Soviet era, yet with the collapse of the planned economic system and the subsequent transition to market prices, restricted access to neighbouring and world markets compounded with the Azerbaijan conflict and a lack of restructuring, the share of industry has fallen significantly. In the case of Kazakhstan, the post-independence recession has completely wiped out a number of industrial sub-sectors, such as consumer goods and the total share of industry fell drastically during the first half of the 1990's. By 2000, the industrial sector had recovered significantly due mainly to an investment-led boom in the oil sub-sector of industry (EIU Kazakhstan CP, 2002: 30).

In Kyrgyzstan industrial output dropped by about half during the first half of the 1990's, yet by 2000 the sector had recovered somewhat mainly due to the development of the Kumtor gold mine. In fact, since 1997 production from the Kumtor gold mine has begun to make a significant contribution to GDP, accounting for about 7% in 2002 (EIU Kyrgyzstan CP, 2002: 22). In Moldova, prior to transition much of industrial output consisted of highly specialised component manufacturing for industry elsewhere in the Soviet Union (Ronnas & Orlova, 2000: 26). In addition to the breakaway of the heavily industrialised region of Transnistria, the closely integrated nature of Moldova's industry meant that the collapse of the Soviet Union had a severe impact on the economy. In 2000, industrial output growth was positive for the first time since independence, due primarily to the food and beverages sub-sectors which accounted for 50% of total industrial output in that year (EIU Moldova CP, 2002: 70).

In addition to the general loss of export markets, the performance of Tajikistan's industrial sector was severely affected by the civil war of 1992-97 and since then, recovery has been slow. For instance, aluminium production, the main industrial sub-sector and Tajikistan's principal source of export revenue was in 2000 only at 65% of the 1990 level (EIU Tajikistan CP, 2002: 60). In Uzbekistan, most industrial production is low value-added (production of agricultural machinery and limited agro-processing activities) and the sector has not yet adjusted to the breakdown of the command economy. In order to prevent the collapse of the sector the government has used protectionist policies and state guaranteed loans with the aim of building up production of import substitutes (EIU Uzbekistan CP, 2003: 20). Unfortunately however, these policies have not yet encouraged the development of a broad industrial base.

The Underdeveloped Services Sector

Firstly, it is important to note that the relatively high percentages of the service sector's contributions to total GDP are to a large extent attributable to the prevalence of *informal* service activities in these countries. In fact, the informal sector as a whole forms an important part of transition economies in general and will be discussed further in later sections of the paper. As for the overall performance of the service sector, in Armenia, the share declined significantly during the initial years of transition, yet since 1994 the service sector has been the main engine of economic growth, primarily due to an increase in retail trade as well as the restructuring of the banking sector and the opening up of this sector to foreign markets (EIU Armenia CP, 2002: 64). By contrast, in Kazakhstan the *formal* service sector is poorly developed consisting mainly of one-person operations in retail, open markets and kiosks and despite reforms, financial services suffer from weak loan quality and play a minor role in financing the economy. In Kyrgyzstan, the government's policy of economic liberalisation has succeeded in creating a myriad of family-run enterprises concentrated almost entirely in the trade and catering sub-sectors of the service sector (EIU Kyrgyzstan CP, 2002: 27).

In Moldova, the insurance sub-sector, remains relatively undeveloped whilst the banking sub-sector has proven relatively successful since 1995, yet again the high figures in the table indicate the extent of informal sector activities in the service sector. In Tajikistan, the banking sector remains weak and although in theory most banks are privatised, they remain closely controlled by the state through the shareholdings of state-owned enterprises. In Uzbekistan, financial services are poorly developed mainly as a result of government restrictions and controls and the small banking sector relies on inflows of foreign debt. Economic instability, scarce credit and government controls prevent the development of other service sectors.

iii. Extent and Pace of the Reforms

In addition to differences in the levels of human development and the sectoral composition of their economies, the six countries also differ significant in terms of the type of transition strategies chosen in moving from planned to market economies. For instance, Kazakhstan adopted a rapid 'shock therapy' strategy of liberalization, whereas in Uzbekistan the transformation process and sequencing of reforms has been relatively gradual and slow. In terms of progress in reforms in these two countries, table 2.2 below illustrates that overall Kazakhstan surpasses Uzbekistan (as indicated by generally higher scores), particularly in areas such as small-scale privatisation, price and trade-liberalisation and interest rate liberalization. In fact in recent years, Uzbekistan has experienced a reversal in reform progress, reflecting growing economic distortions and a weak government commitment to market-oriented reforms, and so has yet to embark on comprehensive liberalisation of markets and trade. As for the institutional framework, this is equally deficient in both countries (and in the other four countries) as indicated by the low rankings for the variables of governance and enterprise restructuring and competition policy.

Table 2.2: Progress in Transition

	Armenia	Kazakhstan	Kyrgyzstan	Moldova	Tajikistan	Uzbekistan
Year of reform start	1992	1992	1992	1996	1997	1996
Speed of reforms	Rapid	Rapid	Rapid	Gradual	Gradual	Gradual
Enterprises						
• Large-scale Privatisation	3	3	3	3	2+	3-
• Small-scale Privatisation	3+	4	4	3+	3+	3
• Governance and enterprise restructuring	2	2	2	2	2-	2-
Markets & Trade						
• Price liberalisation	3	3	3	3+	3	2
• Trade & Foreign exchange system	4	3+	4	4	3+	1
• Competition Policy	1	2	2	2	2-	2
Financial Institutions						
• Banking reform & interest rate liberalisation	2+	2+	2+	2+	1	2-
• Securities markets & non-banking financial institutions	2	2+	2	2	1	2

Notes: See appendix A for explanations on the classification system
Source: EBRD Transition Report 2000

As seen in Kazakhstan, Kyrgyzstan adopted a rapid transition strategy embarking simultaneously on the transition to a democratic system of governance and an economic system based on the market. This determination made Kyrgyzstan stand out in the region for much of the early 1990's and the term 'Island of democracy' was commonly used to describe the political situation and to distinguish Kyrgyzstan from the lack of political reforms in neighbouring countries, in particular Uzbekistan and Tajikistan (UNDP, 2002b: 3). Stabilisation of the economy was the main focus of the reforms and through a combination of tight monetary and fiscal policies the government managed to reduce the budget and current account deficits significantly and succeeded in bringing the inflation rate down to a single digit level by 2001. In addition to liberalising domestic prices very early on in the transition phase, a number of measures were taken to reform the external sector such as eliminating restrictive state monopolies on foreign trade and initiating significant tariff reforms. As a sign of the government's commitment to reform, Kyrgyzstan was the first CIS country to join the World Trade Organisation (in 1998) and has maintained markets and trade free of government administration for more than two-thirds of the period since the transition process began.

Armenia also adopted a 'shock therapy' transition strategy rapidly introducing a series of economic liberalisation reforms including price and trade liberalisation in addition to implementing tight monetary policies to control inflation and reducing public expenditures. The main purpose of these reforms was to achieve macroeconomic stability, to accelerate the rate of economic growth and to increase efficiency in the allocation of resources through structural change in the composition of output. As noted in the previous section, Armenia's composition of output has indeed changed (from an emphasis on industry to agriculture and services). However this shift did not occur due to a reallocation of resources from unproductive to more productive activities but rather due to a contraction in output in sectors (industries) made uncompetitive as a result of price liberalisation. In fact during the first five years of transition, Armenia's average level of prices rose dramatically, with the peak level of inflation reaching 5273% in 1994 (UNDP, 2002a: 3). By 1998 inflation was down to under 10% and in 2001 the rate stood at a mere 3.4%. Thus, whilst Armenia has managed to liberalise trade and achieve price stability, concerns remain that continuous tight monetary policy could hamper investment particularly in new private sector enterprises.

In contrast to Armenia, Kazakhstan and Kyrgyzstan, Moldova's implementation of reforms has been slow, due mainly to the then Government's ambivalent attitude towards fundamental reforms. As a result, short-term crisis management rather than strategic and long-term reform policies has dominated Moldova's political and economic agenda since the collapse of the Soviet Union. In spite of this, Moldova's political transformation seems to have progressed reasonably well at least in terms of an institutional movement towards parliamentary democracy and the development of respect for human rights and freedom. By contrast, although Moldova liberalised domestic prices early and gradually freed trade and access to foreign exchange, the economic transition from playing a small peripheral part in a centrally planned economy to becoming an independent open market economy has proven difficult.

In Tajikistan, reform efforts were initially constrained by civil conflict, yet in recent years significant progress has been achieved, particularly in the areas of price and trade liberalisation, small-scale privatisation and competition policy. However, in terms of the restructuring of financial institutions, progress has been significantly slower. In 1998, a wide-ranging banking reform programme was initiated, including auditing of the major banks by international accounting firms. While the number of small banks has declined, the banking sector remains dominated by the traditional, specialized banks (Gurgen et al., 1999: 65).

In Uzbekistan, economic reforms have for the most part been sporadic and in reaction to events rather than in anticipation of them. Especially with regards to trade liberalization, progress has been sluggish, with the state continuing to play a dominant role, particularly in the foreign exchange market. Moreover, despite efforts to liberalise prices, by 1998 price controls still existed for utilities and transportation and for a large number of monopoly products including food-products. As in the case of Tajikistan, the restructuring of the financial system has been extremely slow and the banking sector continues to be dominated by the traditional state-controlled banks (Gurgen et al., 1999: 64).

This section has shown that the six countries embarked upon the transition process from planned to market economies from significantly different initial points both in terms of human development and structural composition of their economies. Moreover the type, pace and extent of reforms has varied considerably between the countries. In spite of such contrasts, the economic and social costs of the transition process have been more or less similar including declining outputs, rising unemployment, falling wages, and increasing levels of poverty and inequality. These issues will be examined in the following sections.

3. Trends in Economic Growth

In addition to the break-up of the Soviet Union, Armenia also suffered from the war with Azerbaijan, the Azerbaijani-Turkish blockade as well as economic and political collapse in neighbouring Georgia. The combination of these factors resulted in a sharp contraction in Armenia's economy during the first years of the transition process, in particular in 1992 when economic growth fell by 42% (see table 3.1 on the following page). However by 1994 when macroeconomic stabilisation began to show its effects, economic growth picked up and has remained positive since, yet slowing in 1997 due mainly to a slippage in macroeconomic policy and structural reforms. In recent years, growth has been particularly high, due mainly to the privatisation of several large state-controlled enterprises and the expansion of inward processing of diamonds and stones. However, even after seven years of steady economic growth, real output in 2000 was merely 58% of the 1989 level and assuming that as of 2001 onwards, the rate of economic growth will remain at around 10% p.a., Armenia's output will be back to the 1989 level only by 2006 (UNDP, 2002a: 5).

Unlike Armenia, Kazakhstan's economy did not contract sharply in one particular year, but rather less sharply over a longer period of time, becoming positive in 1996 only to slip back into recession in 1998 as a result of the Asian and Russian financial crises, falling export prices and poor economic policy management. When solid economic growth finally took hold in 1999, this was less a result of better domestic policies and more a result of higher world oil prices. Oil-sector fixed investment by foreign firms, has furthermore helped to increase the oil production capacity, increasing the export volume of oil bringing the GDP growth rate to a high of 13.5% in 2001 and just below 10% p.a. in 2000 and 2002. Thus although the oil sub-sector has few links with other industries in the country, it appears to have been the main force behind the recent recovery in economic growth.

In Kyrgyzstan real GDP growth fell by close to 60% in the first four years after independence and has since picked up, due to an increase in agricultural output and the development of the Kumtor gold mine, both of which remained the main factors of growth in the following years. Apart from a deceleration in growth due to the Russian financial crisis, real GDP growth has recovered to an annual average of above 5% p.a. since 1996. In 2002 economic growth was negative for the first time in seven years, due primarily to the slow pace of restructuring outside the gold sector as well as weak levels of investment (EIU Kyrgyzstan CP, 2002: 22).

Table 3.1: GDP Growth (annual percentage change)

	1980-90	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Armenia	3.3	14.2	-7.4	-11.7	-41.8	-8.8	5.4	6.9	5.9	3.3	7.3	3.3	6.0	9.6	12.9
Kazakhstan	1.5	-0.4	-4.6	-11	-5.3	-9.2	-12.6	-8.2	0.5	1.7	-1.9	2.7	9.8	13.5	9.5
Kyrgyzstan	4.2	8.0	5.7	-7.9	-13.9	-15.5	-20.1	-5.4	7.1	9.9	2.1	3.7	5.4	5.3	-0.5
Moldova	3.0	8.5	-2.4	-16.0	-29.1	-1.2	-30.9	-1.4	-5.9	1.6	-6.5	-3.4	2.1	6.1	7.2
Tajikistan	2.9	-2.9	-0.6	-7.1	-29.0	-16.4	-21.3	-12.4	-16.7	1.7	5.3	3.7	8.3	10.2	9.1
Uzbekistan	3.4	3.7	1.6	-0.5	-11.2	-2.3	-5.2	-0.9	1.7	5.2	4.3	4.3	3.8	4.2	4.2

Sources: World Bank, World Development Report 1996 and 1999/2000 and World Development Indicators 2003.

As illustrated in table 3.1, Moldova's GDP has fallen every year from 1990 to 1999, with the exception of 1997, when the agricultural sector benefited from favourable weather conditions. In addition to the breakdown of the Soviet-era trade and supply links and severe price shocks, this continuous fall in economic growth was worsened by the dislocation caused by the breakaway of the industrialised region of Transnistria. Moldova's failure to achieve economic recovery seems to be mainly attributed to the lack of access of agricultural products to external markets, combined with slow progress in economic restructuring and a general inability to address the difficult task of nation-building and societal reconstruction. In 2000, strong import demand in Russia and improved macroeconomic stability led to a modest growth rate of 2.1% rising to 6.1% in 2001 and as high as 7.2% in 2002. However, even when taking this recent recovery into consideration, recorded output is still down in cumulative terms by almost 60% since independence (EIU Moldova CP, 2002: 67).

Tajikistan's fall in output started in 1989 and economic growth has resumed only since 1997. In addition to the break-up of the Soviet Union, this decline was worsened by the civil war which lasted five years from 1992 to 1997 disrupting inter-enterprise relations and hampering the delivery of raw materials and spare parts and led to an increase in energy and other input costs. With the end of the civil war, GDP growth resumed moderately and increased during 1998-2001 mainly as a result of a rise in private sector economic activity and aluminium production. However, according to the UN Economic Commission for Europe, real output in 2001 was still only around 40% of the 1989 level, compared with an average rate of 65% for the twelve members of the CIS (EIU Tajikistan CP, 2002:63).

According to the figures in table 3.1, Uzbekistan's recession following the break-up of the Soviet Union was significantly less severe than in the other countries, with by far the highest year-on-year fall in output being 11% in 1992. Yet, given that Uzbekistan lost Soviet subsidies worth 19.5% of GDP in 1991 (EIU Uzbekistan CP, 2003: 26) such a shallow recession raises questions about the reliability of the official data. Moreover, since the resumption of growth in 1996/97, the official data, on which the World Bank data presented in table 3.1 is based, has remained significantly different to IMF data of 2.5% and 4.1% for 1997 and 1999 respectively. Furthermore, the IMF has pointed out that the economy may even have contracted in 1999, as electricity production and consumption fell by 1.4% and 1.9% respectively in that year (EIU Uzbekistan CP, 2003: 26).

Due to increasingly hostile relations between Uzbekistan and the IMF, official estimates are the only available estimates from 2000 onwards showing a real GDP growth of 4.2% in that year and 4.1% for 2001. However, considering the rapid depreciation of the exchange rate, the erection of import barriers in 1996 and several cotton crop failures, the steady growth rates (according to the official data) since 1997 seem highly implausible. In addition to the IMF, The EBRD also disputes the official data, stating that industrial production fell by a cumulative 10% in 1999 and 2000, as opposed to the 13% rise reported by the government. On the basis of this, it is estimated that the actual GDP growth rate for 2002 is more likely to be around half of the reported 4.2% (EIU Uzbekistan CP, 2003: 27).

4. Poverty and Inequality Trends

The enormous declines in output as outlined above have led to significant increases in poverty levels throughout the region, whilst the revival in economic growth rates has not necessarily led to falling poverty levels. This can partly be explained by the existence of other factors, which determine how economic growth affects poverty and vice versa. One such factor is income inequality; when inequality is high, the benefits of an increase in economic growth will not be distributed equally across the population, leading to an increase in the incidence of poverty. In turn, an increased level of poverty, will lead to lower levels of domestic demand, savings and investment affecting the development of the domestic market and economic growth, completing the vicious circle of high inequality, increasing poverty and lower growth.

As seen in the previous section, Armenia's GDP contracted by about half in 1992 resulting in a significant fall in GDP per capita, and by 1996, 55% of the population were living below the poverty line (see table 4.1 on the following page) and more than a quarter of the population had an income so low that they were unable to satisfy the minimum need for food (extreme poverty)[3] (UNDP, 2002a: 5). Despite the resumption of growth in recent years, the percentage of the population living in poverty remains above 50% with about a third of those living in extreme poverty (UNDP 2002a: 96). In the case of Armenia, unlike in most other developing and transitional economies, poverty is more prevalent in urban than in rural areas. A possible explanation for this lies in the structural differences of household incomes between urban and rural areas, an issue that will be examined further in section five.

During the transition, Armenia's economy underwent a significant structural shift with much of the labour from the declining industrial sector being absorbed in the agricultural sector. This structural change affected a large proportion of households, but not equally. In addition to causing a severe decrease in wages (see section five), the collapse of the industrial sector also led to an increase in wage inequality (as measured by the GINI index) from 0.2 in 1989 to 0.38 in 1995 and 0.41 in 2000. This rise in wage inequality can be explained by the fact that as wages fell, their share in total income diminished and was replaced by profits, remittances and transfers. Since the latter types of income have a much more concentrated distribution than wages, overall income inequality increased as shown in table 4.2 on page 18, with the highest income accruing to the already wealthiest households who earn the vast majority of commercial and industrial profits. Although income inequality among the poorest 60% to 70% of households is relatively small (UNDP, 2002a: 119), Armenia's overall income inequality level is significantly higher than in the other countries examined in this paper.

As in the other countries, poverty in Kazakhstan is not a new phenomenon that has arisen with the collapse of the Soviet-Union, in fact as seen in section one, estimates from the 1989 Family Budget Survey suggest that around 15% of the population had incomes below the 'socially acceptable minimum' in that year (Murthi et al. 1998:1). The decrease and subsequent slow recovery in economic growth meant that poverty incidence increased peaking at 43.4% in 1998, yet has since fallen consistently and remains significantly lower than in any of the other countries with the exception of Uzbekistan (according to the official data). Nevertheless, strong economic growth in recent years has primarily benefited a small section of the urban elite leading to high regional income inequality with wages in oil-rich regions at twice the level of the country-wide average (UNDP 2000).

[3] The official 'food line' on which poverty estimates are based contains a basket of foods yielding 2100 kilocalories a day, of which 1191 calories are obtained from wheat and flour (UNDP, 2002a: 18).

Table 4.1: Poverty Incidence as a Percentage of the Population

	1990	1996	1997	1998	1999	2000	2001	2002
Armenia								
• Urban		58.8			60.4		51.3	
• Rural		48.0			44.8		50.1	
• Total		54.7			53.7		50.9	
Kazakhstan								
• Urban		30.0						
• Rural		39.0						
• Total	5	34.6	43	43.4	34.5	31.8	28.4	27
Kyrgyzstan								
• Urban		30.3	22.2	42.2	42.4			
• Rural		49.6	55.3	62.4	60.0			
• Total	33	43.5	42.9	54.9	55.3	52	47.6	
Moldova								
• Extreme			25.3	25.7	25.5	22.8		
• Absolute						73	60	40
Tajikistan								
• Total	60				80			
Uzbekistan								
• Total	24				14			

Notes: See Appendix B for Country- Specific Notes.
Sources: ADB (2003a), EIU Tajikistan Country Profile 2002, Govt of Moldova (2002), Moldova Ministry of Economy (2003), UNDP (2000), UNDP (2002a), UNDP (2002b).

Unlike in Armenia, poverty in Kazakhstan is more widespread in rural areas than in urban areas with the headcount ratio in 1996 being 39% in the former compared to 30% in the latter. This can be attributed partly to the dismal performance of the agricultural sector compared to the relatively strong performance of the industrial sector as recalled from section one. Yet, amongst a specific group of urban dwellers in the ethnic Russian industrial cities or so-called 'one-company towns' in northern Kazakhstan, poverty is believed to be particularly widespread, mainly as a result of slow structural reform. In terms of regional differences in poverty, more than two out of three people live in poverty in the south compared to one out of eleven in the north (Murthi et al. 1998, 5). This reflects the lower resource endowment of the southern regions as well as more limited employment opportunities in these areas.

Based on the Soviet Family Budget Survey, it is estimated that on the eve of independence about a third of Kyrgyzstan's population lived below the then poverty line. As the transition process began and GDP plummeted the number of people living in poverty increased significantly, reaching a high of 55.3% in 1999. Despite increased GDP growth in recent years, in particular in the agricultural sector, poverty incidence has not fallen significantly. In fact, poverty rose between 1996 (the year when economic growth resumed) and 1999 and has only fallen since then. This pattern can be attributed partly to an unequal distribution of the products of GDP growth as indicated by the rising level of income inequality (see table 4.2) in particular during the early stages of the transition process. Rural poverty incidence in Kyrgyzstan has increased steadily, peaking at 62.4% in 1998 and although urban poverty has risen significantly in recent years, it remains at about two-thirds of the rural poverty level. The fact that 70% of the poor reside in rural areas (UNDP 2002b: 9) points to the importance of the agricultural sector in Kyrgyzstan's economy, both as a source of employment (in particular for the poor) and in contributing to total output, as already seen in section two.

For Moldova, table 4.1 presents figures based on two different poverty measures; extreme and absolute, the definitions of which can be found in the notes to the tables in appendix B. According to the extreme measure, poverty incidence has remained at around 25% since 1997, decreasing slightly to just below 23% in 2000, possibly due to the revival in growth in that year. However, in the same year the absolute measure estimated the poverty incidence to be 73%, falling to 60% in 2001, as growth increased and falling even further to 40% in 2002. In addition, the results of the 2000 household budget survey indicate that the disposable income of approximately 88% of households was less than the subsistence minimum of MDL 413.1 per person per month, whilst the proportion of the population with an income of less than half of the subsistence minimum (MDL 207) was about 53.4% (Govt. of Moldova PRSP, 2002: 5). Thus regardless of the measure of poverty used, it is clear that the level of poverty in Moldova is extremely high. Moreover poverty is more widespread in rural areas, with 64.2% of the rural population and 35.8% of the urban population composing the poorest quintile in 2000 (Govt. of Moldova PRSP: 6). Conversely, income inequality is higher in urban areas contributing to the overall high level of income inequality as indicated in table 4.2.

As recalled from the first section, prior to the break-up of the Soviet Union, Tajikistan was widely recognised as the poorest republic of the Soviet Union, with the income of more than half of the population below the then poverty line. Since this estimate, it was not until the first nationally representative survey of household living standards undertaken in 1999 that a comprehensive and nationally representative picture of poverty in Tajikistan became available. The results of this survey include findings that 95% of the population live below the provisional official minimum consumption basket, that 80% are considered 'poor', 33.3% 'very poor' and 20% 'extremely poor' (Falkingham, 2000: 48). In terms of how poor people perceive themselves, two-thirds of households rank themselves as being amongst the poorest in society and three-quarters are concerned about how they will provide for basic necessities in the next 12 months (Falkingham, 2000: 48). According to the same survey, 87% of households have a monthly expenditure of up to 20,000 Tajik Roubles (less than US$ 12) and slightly over one-fourth of households spend up to TR 8,000 (US$ 4,60) (Gorniak, 2000).

The only source to give a time-series of poverty estimates (the figures presented in table 4.1) for Tajikistan is IMF, according to which in 1999, 80% of the population were living below the poverty line compared to 60% in 1988 (EIU Tajikistan CP, 2002: 64). Thus the effects of a moderate economic recovery since 1997 (and strong economic growth since 2000) do not seem to have 'trickled-down' to the majority of the population. This could be explained by the increasing level of income inequality, with the top 10% of the population enjoying an income more than ten times that of the bottom 10% (Falkingham, 2000: 13). As in the case of Armenia, the main driving force behind rising income inequality has been the unequal distribution of income from sources *other* than wage labour; in the case of Tajikistan; the sale of assets, foodstuffs and remittances (Falkingham, 2000: 48).

In Uzbekistan there is no officially accepted poverty line that is comparable with international standards such as that of US $ 1 a day. The best definition of poverty to date comes from the Ministry of Macroeconomics and Statistics in May 1999 where families in need of social assistance were defined as having an average per capita income at or below one and a half times the official minimum monthly wage of 1,320 (US $ 17 per month). According to this criterion, the proportion of people in need of assistance was 14% in 1999 (ADB, 2002). However, considering the level of poverty in the other countries and the high level of inequality in Uzbekistan, this figure seems to be highly underestimated.

Table 4.2 Income Inequality (measured by the GINI-coefficient)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Armenia	0.25	0.25	0.27				0.61	0.62	0.66		0.57		0.59	
Kazakhstan	0.26		0.29			0.32	0.33		0.35					0.31
Kyrgyzstan	0.27			0.306	0.239	0.353	0.442	0.373	0.391	0.453	0.447	0.443	0.449	0.441
Moldova	0.24		0.26		0.34	0.36	0.37	0.39		0.44	0.41	0.44	0.42	0.43
Tajikistan	0.30	0.31	0.33								0.47	0.47		
Uzbekistan	0.29			0.26		0.33	0.33		0.32		0.43			

Sources: For Armenia: IMF (2002) and UNDP (2002a). For Kazakhstan: World Bank (1998). For Kyrgyzstan: UNDP (2002b). For Moldova: Govt. of Moldova (2002). For Tajikistan: Falkingham J. (2000). For Uzbekistan: ADB Uzbekistan Poverty Assessment http://www.adb.org/Documents/CAPs/UZB/0102.asp

5. Labour Market Trends

The previous section mentioned inequality as a factor determining the impact that economic growth would have on poverty. Labour market factors such as the sectoral composition of employment, unemployment and wage levels are also extremely important variables in determining the relationship between economic growth and poverty and more importantly in determining whether growth is 'pro-poor'. The present section examines the unemployment and wage trends in the six transition countries and the following section will bring in sectoral employment in order to provide a full analysis of the growth, employment and poverty nexus.

i. Unemployment Trends

During the early stages of the transition process when GDP went into a precipitous decline, employment generally declined more moderately, creating the illusion that productive employment could be sustained in the midst of an economic depression. This can partly be explained by the fact that many workers remained 'nominally attached' to their work places although they were not actually working or earning wages. This phenomenon of 'labour hoarding' is particularly severe in agriculture where families work either on leased plots of land or in cooperatives as well as in state-owned industrial enterprises which refrain from labour lay-offs in times of output contractions. Fortunately, following the privatisation of medium and large-scale enterprises in the middle and late 1990's, the underemployment hidden by such 'labour hoarding' in the earlier part of the decade became more apparent.

Other explanations for the low official unemployment rates presented in table 5.1 include the fact that in most of these countries the chances of finding a job with the state-run employment agencies is so low that the amount of people signing up (hence registering as unemployed) to these agencies is minimal. Furthermore the unemployment benefits provided by the state are either non-universal or so marginal that job-seekers do not bother to register for them and hence are not recorded as being unemployed. In Armenia for instance, it is estimated that only about 25% of all unemployed persons register and only 15% of these receive the less than US$ 5 monthly unemployment benefit (UNDP 2002a: 79-80). Similarly in Moldova, only about one-fifth of the registered unemployed are entitled to unemployment benefits (Ronnas, 2000: 74). Furthermore, in Kazakhstan, unemployed persons who have received unemployment benefits for more than six months are excluded from the official statistics. Moreover in all six countries there has been a decline in the labour force participation rate as 'discouraged' workers have stopped seeking formal sector employment, complicating the interpretation of the official data further.

Despite these serious shortcomings of the official unemployment statistics, the available data is presented in table 5.1. In addition, data from other non-official sources is presented for most of the countries in the hope that one can form some idea of the unemployment levels and trends over the transition period in the six countries. This should facilitate the analysis of the possible linkages between economic growth, employment and poverty, as from a human development perspective, unemployment (and underemployment) is widely recognised as a key indicator and determinant of the level of poverty.

Table 5.1: Unemployment Rates

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Armenia												
• Official		1.8	5.3	6.6	6.7	9.3	10.8	9.4	11.2	11.7	10.3	
• Other		3.5	6.2	5.6	8.1	9.7	11					
Kazakhstan												
• Official	0.1	0.4	0.6	1.1	2.1	4.2	3.8	3.7	3.9	3.7	2.9	
• Other	0	0.5	0.5	8	11	13	13.5	13.1	13.7	12.8*	10.4*	9.4*
Kyrgyzstan												
• Official		0.1	0.2	3.1	4.4	6	4.3					
• Other	0	0.1	0.2	4.1	5.7	7.8	7.5				7.8*	
Moldova												
• Official	0	0.7	0.7	1.1	1.4	1.8	1.5	1.9	2	1.8		
• ILO								13	11.1	8.5	7.3	
Tajikistan												
• Official	0	0.3	0.8	1.2	1.3	1.6	1.8	2.9		3.0		
• Other					2				2.7	2.3*	2.7*	
Uzbekistan												
• Official	0	0.1	0.3	0.4	0.4	0.4	0.4	0.5	0.6			

Notes: * Figures are from ADB (2003a).
Sources: For Armenia and Kazakhstan the official data is from ILO LABORSTA (based on official sources) and for Kyrgyzstan, Moldova, Tajikistan and Uzbekistan, the official data is from EBRD (2000).
For Armenia, Kazakhstan and Kyrgyzstan 'other' refers to Kolodko, G. (2000). For Moldova 'ILO' refers to LABORSTA. For Tajikistan, 'other' refers to ILO (2003).

In the case of Armenia the two data sets presented in the above table provide a similar picture of unemployment increasing steadily during the transition period. However due to the type of problems discussed before, these figures are likely to be significantly lower than the actual unemployment rate at any one time. For instance, the figures presented in the table appear to reflect registered unemployment (as a percentage of the labour force at the end of each year) whereas according to labour force survey data, in 1997, the unemployment rate was 36.4% (Nesporova, 2002: 15-16). Moreover, the comprehensive study on Armenia by UNDP estimates that if figures on both registered unemployment and the withdrawal of people from the labour force are taken into account, about 50% of all working age adults of 25-49 years of age were without formal employment in 1998 (UNDP 2002a: 80).

As with poverty, unemployment in Armenia is mainly concentrated in urban areas and is a more or less direct result of the collapse of state-owned industries following the breakdown of Soviet-era trade relations as well as the imposition of shock therapy measures. Of those registered as unemployed about one third are reported to find work, mostly in temporary or casual employment, whereas those who are not registered (constituting the vast majority of the unemployed) have tended to find employment in marginal or informal activities e.g. in urban petty trade or rural bartering (UNDP 2002a: 80). Thus in addition to unemployment, underemployment also appears to be a prevalent characteristic of the Armenian labour market.

In section three it was noted that economic growth in Armenia picked up in 1994 and has since remained stable and relatively strong. However, as seen above this economic recovery has not led to a decline in unemployment, or in economic terms, the 'employment elasticity' of output growth has been negative. This lack of employment creation during a period of economic growth can be attributed not so much to the shedding of labour by state-owned industries, as this happened relatively early on in the transition period, but rather to slow growth in the newly established more labour-intensive private sector (UNDP 2002a: 80).

In contrast to in the case of Armenia, the two data-sets for Kazakhstan vary significantly from 1994 onwards in terms of the magnitude of unemployment, with the official figures being significantly lower than the alternative estimates. However, on the basis of the problems of 'hidden unemployment' described at the beginning of this section, one might be tempted to trust the 'un-official' data more than the official data. Moreover, in recalling the GDP growth data provided in section three, economic growth in Kazakhstan did not recover properly until 1999, the same years as poverty levels started to fall. This pattern matches the unofficial data set of falling unemployment levels significantly better than the official one.

In support of the higher unemployment figures is also the fact that a significant share of the population avoid paying taxes on income earned via temporary or seasonal employment and thus do not appear in official statistics (UNDP, 2000: 7). Thus, as in Armenia, a substantial amount of people work in the informal or 'shadow economy' performing temporary or occasional work, and thus fall into the category of underemployed. In fact the concept of the 'informal economy' represents a common feature of transition countries in general and box 1 provides a few examples from some of the countries examined in this paper.

Box 1: The Informal Economy

A common characteristic of the labour markets in transition countries is the substantial amount of workers who are engaged in informal sector activities. For instance, in Armenia, industry and services together lost roughly 492,400 workers from 1990 to 2000 and agriculture absorbed about 282,900 of these implying a net loss of roughly 210,000 jobs in the *formal* economy. These 'missing' workers undoubtedly joined the informal sector engaging in low-income insecure economic activities, mainly service related. In Kazakhstan, about 30% of the working population earn unreported income in the so-called 'shadow economy' (UNDP, 2000: 7) and in Kyrgyzstan, it is estimated that the 'grey economy' accounts for as much as 50% of GDP (EIU Kyrgyzstan CP, 2002: 22). In Moldova in 1996, the total labour force in the trade, commerce and repair activities sector far exceeded the manufacturing labour force, yet the share of wage labour in this sector represented only 21%, implying that some 80% were working informally. Although, some workers might well have moved from wage employment in industry to successful self-employment, the more likely scenario is that the majority had been forced into distress activities such as petty trading due to lack of alternative income opportunities (Ronnas, 2000: 75). Thus increased employment in the informal sector is another mechanism through which the labour markets adjust to declines in output and therefore constitutes another link between growth and poverty. However, since informal sector activities are not accounted for officially, the people who are engaged in such low-income jobs (who tend to be amongst the poorest in society) remain unaccounted for as well.

In contrast to Kazakhstan, for Kyrgyzstan the two sets of unemployment data do not vary significantly, although the unofficial estimates are slightly higher than the official ones. Yet, given the severe decline in GDP growth until 1996, even the highest estimated unemployment rate of 7.8% in that year seems relatively low. According to both data sets and to another even broader estimate (including discouraged workers), based on the Kyrgyz monitoring surveys of 1996 and 1998, unemployment fell from 1996 to 1998 (UNDP 2002b: 44). This does not match the poverty levels, which apart from a minor fall from 1996 to 1997 was at an even higher level by 1998. An explanation for this will be examined in the following section.

In the case of Moldova, the ILO data, although only available for a limited number of years paints a significantly different picture of the unemployment situation to that of the extremely low official data. A SIDA funded study on Moldova finds that between 1995 and 1998 the number of people engaged in wage employment declined by 11.7%, as a result of the drastic reduction in the state sector labour force due to the closures of industrial enterprises and the separation of Transnistria where the largest part of these enterprises were located (Ronnas & Orlova, 2000: 73-74). Moreover, according to the national poverty alleviation strategy financed by UNDP, during the first half of 1997, 9.8% of the total workforce were fired from enterprises and another 12% were on forced leave (Gorniak, 2000: 160).

Thus, apart from the fact that all non-official sources provide unemployment estimates which are significantly higher than the official figures, the GDP growth rates, which were negative or marginal until 2001 also provide an indication that unemployment cannot have remained under 2% all throughout the 1990's. Furthermore, according to the Economist Intelligence Unit in 2002, 10-15% of the total workforce were working only part-time or were on unpaid leave (EIU Moldova CP, 2002: 67), indicating in addition to unemployment, the extent of the underemployment problem in Moldova.

Considering the high incidence of poverty in Tajikistan, the official unemployment figures seem shockingly low and it would be safe to assume that these do not represent a true reflection of the labour market situation. More realistically, it is estimated that when 'hidden' employment is taken into account, the total unemployment rate is about 33% (Govt. of Tajikistan PRSP, 2002: 27). Beyond statistical shortcomings, the low official unemployment rates reflect the system of 'guaranteed state employment' for all citizens, which continues to constitute an integral part of the social safety net system in Tajikistan (Gurgen et al. 1999: 13). Similarly for Uzbekistan, unemployment is estimated to be significantly higher than the official and extremely low figures presented in table 5.1. These figures mask considerable 'hidden' unemployment and underemployment especially in state-owned enterprises, reflecting the considerable delay in state enterprise restructuring in particular in the phasing-out of budgetary support and directed credits to enterprises (Gurgen et al 1999: 3).

Given the extent of the unemployment and underemployment problem in the six countries, it is not surprising that poverty incidences have reached the levels outlined in the previous section. However, in addition to the unreliable nature of the data, unemployment figures alone are rarely sufficient in explaining the prevalence of poverty, as often a substantial part of the employed population is poor precisely because of the type of work they are engaged in. This concept of the 'working poor' is common in transition countries in general, as explained with a few examples in box 2 on the following page and goes a long way in explaining the existence of poverty which cannot be accounted for by mere unemployment figures.

Box 2: The 'Working Poor'

In all of the six countries, the rise in official open unemployment was relatively low given the dramatic declines in output and rise in poverty, implying that as a proportion of all working age individuals, the number of unemployed is relatively small. This can partly be explained by the high number of 'working poor', who work but are poor either because they have too many dependents to support, work in low-wage occupations, are subject to involuntary leave without pay or short hours, are paid irregularly, or some combination of these factors. In cases where unemployment benefits are low or non-universal as for instance in Moldova, where only one-fifth of the registered unemployed are entitled to unemployment benefits, (Ronnas, 2000: 74) the 'working poor' cannot afford to be officially unemployed and prefer to continue 'working'. Similarly in Kazakhstan, in the bottom two quintiles of the population, 48.3% of working age individuals are employed, 4.7% are unemployed and 47% are inactive (neither employed nor actively seeking employment). Thus the vast majority of the poor in Kazakhstan are 'working poor' (Murthi, 1998: 7). In Armenia as well, many of the poor are not unemployed, but are 'working poor', engaged in low-productivity, low-income sectors of the economy such as small-scale agriculture and urban informal-sector activities (UNDP 2002a: 76).

ii. Real Wage Trends

In addition to changes in the levels of unemployment, another labour market mechanism through which a decrease or an increase in economic growth manifests itself is through alterations in real wage levels. In fact, given the unreliability of the official unemployment data for reasons outlined previously as well as the substantial amount of 'working poor', real wage trends may in some cases provide a more accurate picture of the situation workers are facing as a result of the transition process. On the other hand one should also keep in mind that average real wages do not provide a complete description of real incomes in the transition economies as workers generally have more than one job and often receive supplemental in kind income and services such as housing and child care (Gurgen et al., 1999: 14).

Moreover, given the enormous inflation rates experienced throughout the region during the transition period, it is important that wage trends are adjusted to general price levels (as measured by the consumer price index). On this basis, the most accurate, reliable and comparable indicator of wage trends is the real manufacturing wage index as presented in two separate time-series for all the countries in table 5.2 on the following page.

Table 5.2: Real Manufacturing Wage Index

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Armenia											
T1			66.8	100	112.7	154.1	191.5	212.4			
T2					100	136.8	170	188.5	215.8	260	
Kazakhstan											
T1	100	37.9	21.3	54.4	56.8	58.1	59.1	56.5	61.7		
T2					100	102.3	104	99.4	108.6		
Kyrgyzstan											
T1		100	66	55.8	52.3	68.5	71.9	76.2	72.6		
T2					100	131.1	137.5	145.8	138.9		
Moldova											
T1	173.5	100	25	16.1	18.2	19.8	22.1	23.3	20.7		
T2					100		121.7	128.1	113.6	119	130.1
Tajikistan											
T1	100	58.7	28	20	8.8	12.3	13.3				
T2			318.2	227	100	140	151.1				
Uzbekistan*			97.4	-24.3	-18.9	31.8	-1				

Notes: T1 indicates one time-series where the base-year for each country is indicated by 100. T2 indicates another time-series where the base-year is 1995 for all the countries. * For Uzbekistan, due to lack of data, the figures presented in the table indicate the percentage change in real average monthly wages.
Sources: KILM 2001/02 and 2003 and EIU Uzbekistan Country Profile, various years.

As industry collapsed in Armenia, average urban wages fell rapidly as indicated by the relative low index figure of 66.8 in 1993 and economic opportunities became so scarce that less than half the income of the two poorest quintiles came from wages and self-employment with the majority of their income coming from unproductive activities such as remittances, transfers and assets sold. (UNDP, 2002a: 97). By contrast, the relatively strong performance of the agricultural sector meant that farm incomes (the most important source of income in rural areas) did not decline significantly and as a result poor households in rural areas continued to be able to generate the majority of their income from productive activities. This difference in the structure of household incomes between urban and rural areas partly explains why poverty in Armenia is more severe in urban than in rural areas (see section four). According to the index, manufacturing wage levels have increased continuously since the resumption of growth in 1994 and have more than doubled from 1994 to 1998, yet as recalled from section four, urban poverty rose during this period (from 1996 to 1999). Assuming that manufacturing industries are located mainly in urban areas, this implies that the urban poor did not benefit from increased economic growth. In fact, as the economy picked up and the privatisation of state-owned enterprise began to take hold, urban wages did indeed begin to rise, yet at the expense of increased unemployment, as seen in the previous section. Thus whilst the majority of workers lost their jobs and fell into poverty, the small group of workers who managed to keep their jobs saw their wages rise significantly.

The contrary occurred in the agricultural sector where employment increased, due partly to the flight of workers from urban areas and since incomes in this sector remained relatively stable, rural poverty fell between 1996 and 1999 causing a fall in the overall level of poverty. Since 1999, the reverse appears to have happened, with poverty rising in rural areas, perhaps due precisely to the amount of workers absorbed in this sector leading to underemployment, low productivity and falling incomes. In urban areas poverty has decreased significantly, leading to a fall in total poverty and overall unemployment has fallen slightly, whilst wages have continued to rise. This recent improvement in urban areas could possibly be an indication of successful privatisation schemes.

In Kazakhstan wages fell by about 80% during the first couple of years of the transition process, before recovering to around 60% of their 1991 level by 1999, the year when economic growth resumed properly and total poverty incidence started to decline. In comparison with Armenia, although Kazakhstan also experienced relatively high unemployment levels, the transition adjustment in the labour market appears to have taken place primarily on the price side. On the basis of this as well as the fact that wages provide on average 30-40% of all cash income (UNDP, 2001: 27), estimating the extent to which wages cover the subsistence minimum is important in order to characterise the poverty of the population from an income perspective. For instance, in 1998, wages consisted of 104.3% of the subsistence minimum in the industrial city of Astana, whereas in the more agriculturally dominated Southern Kazakhstan region this share was equivalent to 20%, whilst the share for the country as a whole was 44.7% (UNDP, 2000: 27). This helps to explain why poverty in Kazakhstan is more prevalent in rural than in urban areas.

Furthermore, the regions where wages make up the smallest percentage of the subsistence minimum tend also to be the ones with the largest populations, and vice versa. For instance the Southern Kazakhstan region is home to 13.1% of the total population, whereas only 2.1% live in the city of Astana. As a result of the population distribution, in 1998, 66% of Kazakhstan's total population lived in regions where wages provided less than 50% of the subsistence minimum, and only in Astana did wages provide the entire subsistence minimum. On the basis of this and the important role that wages play in overall incomes, there appears to be a close link between the level of wages and poverty and the decline in real wages during the transition period, seems to have been the main cause of poverty in Kazakhstan.

In the case of Kyrgyzstan, the manufacturing wage indices also shows a declining trend, (although not as sharp as in the case of Kazakhstan) until 1996 when wages began to recover, simultaneously with the resumption in economic growth and a decline in unemployment. Although overall poverty incidence fell by a minimal amount from 1996 to 1997, due entirely to the fall in urban poverty (as rural poverty rose during that period), the level has increased since, despite continued economic growth and generally rising wages. This, however, is not as illogical as it seems, keeping in mind that the agricultural sector continues to employ the vast majority (53%) of the labour force (see table 6.1). Thus, a rise in manufacturing wages which merely affects the 8% of the labour force who are employed in industrial activities will certainly not have much impact on rural poverty incidence and given the prevalence of the latter compared to urban poverty, the impact on overall poverty will also be limited.

If one were to believe in the extremely low official unemployment figures presented for Moldova in section five, one could justify this belief by arguing that falling wages have constituted the main mechanism through which the labour market adjusted to the severe output decline. Indeed manufacturing wages fell significantly during the transition period, dropping to 16% of their 1992 level by 1994 and recovering minimally to 20% by 1999. Such low levels of wages match the continuous decline in GDP until 2000 (with the exception of 1997, as reflected in a slight pick-up in wages in 1997 and 1998). This inability of the economy to generate wage employment has meant that many of the households where wage income made up a dominant share of the income, have become more dependent on farm incomes for their survival. However, since agricultural incomes constitute only just over half of the national average of incomes (Ronnas & Orlova, 2000: 73) it is not surprising that poverty according to the absolute measure stood at 73% in 2000. However, since 2000, economic growth has finally resumed and this is reflected in falling unemployment levels as well as rising wages and a fall in poverty incidence down to 40% by 2002.

Tajikistan provides the gloomiest picture of all the countries with manufacturing wages falling to just under 9% of their 1991 level in 1995 and remaining extremely low at just over 13% in 1997 – the latest year for which data is available, even for the newest time-series. Whether the official unemployment data presented in section five is reliable or not, it is certain that falling wages have been a key labour market response to the drastic output declines. In comparing the actual nominal wage with the subsistence minimum needed for basic survival one gets an idea of exactly how dire the situation is in Tajikistan. In 1995, the monthly average nominal wage was 7 US$ whilst the subsistence minimum was 24,7 US$ and in 1998 the monthly average nominal wage was 11 US$ whilst the subsistence minimum was 30,6 US$ (World Bank, 2000: 46). Thus, despite the slight increase in wages since 1995, the average wage remains at about one third of the subsistence minimum. As for the monthly minimum wage, it was 1.3 US$ in both 1995 and 1998, representing about one-thirtieth of the subsistence minimum, and as low as 0.57 US$ in 1997 equalling one-fiftieth of the subsistence minimum (World Bank, 2000: 46). Considering these insignificant wages, it is not surprising that according to some measures close to the entire population live in poverty.

Although, a number of legislative reforms since independence have ended the commitment to full employment in Uzbekistan, during the first years of transition pressures on the labour market to adjust to declining outputs generally resulted in real wage falls rather than open unemployment. Unfortunately due to the lack of both nominal wages and consumer price index data, calculating a wage index has not been possible in the case of Uzbekistan. According to the EIU data presented in table 5.2, real average monthly wages have fallen year-on-year in every year from 1993 to 1997, with the exception of 1996. Moreover, the World Bank estimates that by 1992, average real wages had fallen to half of their 1990 level, whilst the real minimum wage fell by 74% during the same period (World Bank, 1994: ii).

Table 5.3 below provides a summary of the current section by indicating the type of labour market adjustments that the six countries have undergone as a result of the transition process. In all of the countries, changes in the price of labour (wages) have constituted a labour market response both to declining output and in most cases to the subsequent resumption in economic growth. In more than half of the countries, adjustment in the quantity of labour, as reflected in unemployment figures has been a mechanism through which the labour market has responded to changes in output. Thus in most of the countries and as would be expected from such enormous declines in output, labour markets have responded through a combination of quantity and price adjustments. In fact, supposing a complete and reliable unemployment data set did exist for all of the six countries, one would expect some sort of a combined labour market responses to be the case for all the countries.

Table 5.3: Summary of Labour Market Adjustments to the Fall in Output

Countries	Quantity	Price/Wage
Armenia	Yes	Yes
Kazakhstan	Yes	Yes
Kyrgyzstan	Yes	Yes
Moldova	Yes	Yes
Tajikistan	No	Yes
Uzbekistan	No	Yes

To end this section, it might be interesting to note that in addition to the high levels of poverty and inequality, another consequence of the high levels of unemployment and low wages in the six transition countries has been an increase in the number of workers migrating to neighbouring countries, with the aim of earning a better living abroad. In fact, leaving the numerous problems related to migration aside, the external labour market seems to play a significant role in easing pressure on the domestic labour market and thereby to some extent mitigating the fall in incomes and the rise in the incidence of poverty in these countries.

Box 3: The Importance of Migration

In all of the CIS countries, migration to other countries has played a crucial role as a safety net for households with unemployed and/or poorly paid workers. Every year hundreds of thousands of migrant workers from Kyrgyzstan and Tajikistan make their way to richer Kazakhstan and Russia to find jobs, mainly in construction or farming. In Khoji-Bogh, a mountain village in northern Tajikistan, eight out of ten villagers make the trip every spring, knowing that the $1,000 they can earn during the season is more than they could ever hope to make at home (The Economist, Survey of Central Asia, July 26th 2003). In Armenia, the 1996 Household Budget Survey revealed that about 110,000 people lived temporarily outside Armenia, originating from 10% of Armenian households. The great majority of the temporary emigrants were of prime working age and three-quarters were men, consisting of many skilled workers or professionals. The economic contribution of migrants to Armenia's economy is substantial: official statistics report that in 1996 remittances accounted for 13.2% of current income, compared to 13.1% coming from wages. In Moldova, 8.5% of the active labour force has emigrated of which 54% are less than 30 years old (Govt. of Moldova, 2002: 5).

6. Analysis of Growth, Poverty and Employment Linkages

As seen in the previous sections, the initial years following the collapse of the Soviet Union were characterised by enormous economic and social costs in terms of severe declines in output and rising levels of unemployment and poverty in all of the six countries. In addition, all the countries experienced increasing income inequality and falling real wages in manufacturing. However, more than a decade after the start of the transition process, economic growth has generally resumed across the region although it remains low and unstable in some countries. According to 'trickle-down' economics, increased economic growth should benefit the poorest sections of society by leading to a fall in poverty incidence. This section examines this theory in the case of the six CIS countries by analysing the linkages between growth, employment and poverty. As a starting point, a summary of the trends in poverty, unemployment and wages, as described in the previous sections, from the year in which economic growth resumed in each country is presented in table 6.1 below.

Table 6.1: Summary of Growth, Poverty, Unemployment and Wage Trends

	Resumption of Growth	Poverty	Unemployment	Manufacturing Wages (Real)
Armenia	1994	Falling	Rising	Rising
Kazakhstan	1999	Falling	Falling	Rising
Kyrgyzstan	1996	Rising	Falling	Rising
Moldova	2000	Falling	Falling	Rising
Tajikistan	1997	Rising (?)	Rising	Rising (?)
Uzbekistan	1997	Rising (?)	Rising	(?)

Note: (?) indicates that based on the available data it has not been possible to identify a certain trend.

A first glance at table 6.1 reveals that in half of the countries, poverty has fallen since the resumption of growth, whereas in the other half poverty has risen. Kazakhstan and Moldova have in addition to a decrease in poverty also experienced a fall in the unemployment rate, whereas in Armenia the drop in poverty incidence has occurred in spite of the rise in unemployment. In Tajikistan and Uzbekistan the lack, not just of reliable data, but of data in general, prevents any definite assertion with regard to the poverty trend, yet on the basis of other information such as inequality levels, the human development index and GDP per capita, the assumption that poverty has risen in both countries is not entirely unjustified. According to the official data, unemployment in both Tajikistan and Uzbekistan has risen after 1997, yet the lack of wage data makes it difficult to assess what has happened to wages since the resumption of growth, although rising wages in the case of Tajikistan seems to be a reasonable guess based on the trends in previous years. Out of all the countries, Kyrgyzstan presents the oddest case with rising poverty in spite of relatively strong and stable economic growth since 1996, simultaneously with falling unemployment levels and rising wages.

In section five, the role of structural shifts in explaining specific trends in growth, poverty, inequality, unemployment and wages was discussed to some extent in country specific connections. In fact such structural shifts in the economy go a long way in explaining such trends in all of the six CIS countries. The reason for this stems from one of the most common assumptions in economics: namely that during the process of economic growth, labour moves out of the low-productivity agricultural sector into the higher-productivity industrial and services sectors. As a result workers' incomes improve along with their welfare reducing the overall incidence of poverty as well as the risk of falling into poverty. However as shall be discussed in this section, such a straightforward shift in labour related to resumption in growth, does certainly not characterise the general situation in the six countries.

In Armenia, as discussed throughout the paper, the drastic decline in output led to a significant reduction in the contribution of industry to overall GDP and an equally steep increase in the contribution of agriculture, in particular during the initial years of the transition. In addition to altering the composition of GDP, the structural shift from an emphasis on industry to agriculture, also changed the employment structure of Armenia with displaced industrial workers being absorbed in agriculture as seen in table 6.2 below. This is a natural response of an economy facing declining growth rates and as discussed earlier, the fall in industrial employment explains the high levels of urban poverty and poverty in general.

However, has the reverse response also happened? Since the resumption of growth in 1994 overall poverty has indeed fallen, but only slightly, in fact between 1996 and 1999 when the economy grew by about 5% per annum, poverty merely fell by 1%. When putting together the figures on the sectoral composition of GDP and employment, one will note that although the GDP share of agriculture has fallen since 1994 the percentage of the population employed in agricultural activities has risen. This implies that the sector has experienced a decline in the productivity of labour (underemployment) leading to falling incomes and rising levels of poverty. Moreover, in industry the share of employment has continued to fall, implying that the process of economic growth in Armenia has *not* led to a shift in labour from low-productivity sectors to more productive sectors. The figures in table 2.1 also reveal that since the resumption of growth in 1994, the share of services in GDP has more than doubled, yet this is not reflected to the same extent in the employment composition of GDP as the majority of employment in services has occurred in the informal sector.

Table 6.2: Sectoral Employment as a Percentage of Total Employment

	1990	**1995**	**2000**
Armenia			
• Agriculture	17.4	37.4	44.4
• Industry	30.4	20.5	14.1
• Services	40.6	37	37.9
Kazakhstan			
• Agriculture	22.8	10.2	3.7
• Industry	20.3	12.4	10.5
• Services	40.7	49.7	n/a
Kyrgyzstan			
• Agriculture	32.6	41.6	53.1
• Industry	19.1	14.6	8
• Services	n/a	n/a	32.8
Moldova			
• Agriculture	32.5	45.2	27
• Industry	30.3 (22)	16	19.1 (16.1)
• Services	n/a	n/a	n/a
Tajikistan			
• Agriculture	42.9	59.1	67.2
• Industry	13.4	9.8	7.5
• Services	8.3	4.4	n/a
Uzbekistan			
• Agriculture	43.5	45.8	34.4
• Industry	13.9	12.4	12.7
• Services	7.2	6	7.5

Notes: For Moldova industry includes construction (figures in brackets indicate without construction).
For Uzbekistan 1990 represents 1992. For Kazakhstan 1995 represents 1997.
Sources: UNDP (2002a), EIU Country Profiles, various years.

In Kazakhstan, the output decline led to a significant fall both in the industrial and the agricultural composition of GDP and by 1995 the employment share of both sectors fell to about half of the 1990 level, leading to a rise in open unemployment reaching a high of 13.7% in 1999 (according to unofficial sources) and a consequent rise in poverty. In addition to the rise in open unemployment, it is believed that a substantial amount of workers sought employment in the 'shadow economy', mainly in services related activities. As seen earlier, it is estimated that the informal sector employs 30% of the total workforce (UNDP, 2000: 7). This would explain the significant rise in the contribution of services to overall GDP, yet unfortunately a full data set on the employment share of services is not available - probably due to the highly informal nature of the sector. However, it is safe to assume that the decline in Kazakhstan's economy led to displaced labour (both from the high productivity industrial sector and the low productivity agricultural sector) being absorbed into the informal sector.

Compared to Armenia, economic growth resumed relatively late in Kazakhstan, although positive in 1996 and 1997, it didn't settle at a reasonable level until 1999 and has since increased substantially, due mainly to the strongly developed industrial sector, in particular the oil sub-sector. As seen in table 2.1 the contribution of the industrial sector as a whole to GDP has risen to over 40% in 2000 (just under the 1992 level), and in the same year Kazakhstan was the only country in which employment in industry was higher than employment in agriculture. This revival in the high-productivity industrial sector has been the main reason behind the fall in unemployment and poverty since 1999. In spite of such positive developments, one should keep in mind that the industrial sector's share in employment is still relatively low (at about 50% of the 1990 level), implying that un- and underemployment remain prevalent features of Kazakhstan's labour market.

As in all the other countries, in Kyrgyzstan the first half of the 1990's was characterised by falling outputs, with the share of industry falling to a low of 50% of its 1990 level in 1996 and the employment share of the sector falling continuously during the 1990's. Although a portion of the labour shed from the industrial sector was absorbed in agricultural activities as indicated by the rise both in the agricultural share of GDP and employment, unemployment levels rose and poverty increased. Thus with respect to structural shifts, Kyrgyzstan's experience is similar to that of Armenia's, yet in the latter, poverty is more prevalent in urban areas whereas in the former poverty is more widespread in rural areas. This can be attributed partly to the fact that whilst Armenia has been predominantly industrial in its production pattern, Kyrgyzstan is traditionally an agricultural economy.

In 1996, economic growth in Kyrgyzstan resumed, and has since remained at a relatively high level (with the exception of a decline in 2002), almost exclusively due to the development of the Kumtor gold mine. However in terms of poverty and inequality, the effect of this increased growth seems to have been delayed (in spite of rising wages and falling unemployment) with the former falling slightly since 1999 and the latter since 2000. As noted before, poverty is particularly severe in rural areas, thus although table 6.2 illustrates that the employment share of agriculture has continued to rise this is not an indication of increased productive employment (this is also revealed in the falling output share of agriculture). In fact the increased share of agricultural employment (contributing to the fall in overall unemployment) seems to be mainly a reflection of rising underemployment in this sector.

In Moldova GDP declined for nearly a decade from 1990 to 1999 due to declining outputs in both the agricultural and the industrial sector and although the share of employment in agriculture rose during the first half of the 1990's, this was a sign of labour hoarding rather

than growth of the sector. Although the drastic decline in output is neither reflected in increasing poverty nor in rising unemployment levels, this should be considered a weakness of the data rather than the reality. In support of this, one needs only observe the inequality and wage trends, which both reflect a worsening of the human development situation in Moldova. The share of services in the economy did rise continuously during the 1990's, yet again this can be attributed mainly to a rise in informal sector activities. The recovery in growth since 2000 can be partly attributed to the relative success of the agricultural sector reforms undertaken in the late 1990's. The small private farms created by these reforms are playing an important role in absorbing a significant amount of the displaced industrial workers from collapsing industries. However, the revival in growth is so recent that one may wonder whether growth will remain positive and stable from now on, yet with increasing growth rates in 2001 and 2002, Moldova's economy definitely appears to be on the right track. Indeed both unemployment and poverty levels have fallen since 2000, whilst manufacturing wage levels have risen since 1999.

Due partly to its tradition as an agricultural society, the decline in GDP in Tajikistan led to an enormous shift in labour from industrial to agricultural activities causing rising levels of underemployment. Although it is safe to assume that the available unemployment data does not provide a full picture of the labour market situation, the real misery faced by workers who remained in manufacturing activities is reflected in the severe fall in wage levels to under 10% of the 1990 level in 1995. Since the resumption in growth in 1997 (which is mainly due to increased informal sector activities), the share of employment in agriculture has continued to rise, with the sector employing close to 70% of the total population, yet agricultural output has continued to fall, pointing to the tremendously low and falling level of productivity in the sector. Industrial output and employment has also continued to decline, thus it is no surprise that according to some estimates 96% of the population live below the provisional official minimum consumption basket (Falkingham, 2002: 11). In recent years GDP growth has been relatively strong, so it will be interesting to see what implications, if any, this will have for poverty, unemployment and wage levels.

The decline in output in Uzbekistan occurred both in the agricultural and industrial sector, although during the first half of the 1990's some of the labour displaced from industry was absorbed in agriculture. Exactly what has happened to poverty and unemployment levels as a result of the transition process remains more or less guesswork, as such data for Uzbekistan is particularly scarce and in the case of the unemployment data, almost entirely unreliable. However, the available data on inequality and average wages, provides some indication of the situation, with the former showing a definite increase during the 1990's and the latter a year-on-year fall from 1993 to 1997 (apart from an increase in 1996).

Since the resumption of growth in 1997, agricultural output appears to have risen slightly, whilst industrial output has continued to fall. Interestingly, with regards to sectoral employment the pattern appears to be the opposite, implying that the fall in industrial output is due to an increase in unproductive employment (or underemployment) in this sector. As for services, both output and employment appear to have risen in recent years, but this is most probably due to increasing activities in the informal service sector. Overall unemployment, according to the official data, appears to have risen since the resumption of economic growth, and in combination with the rise in income inequality after 1997, one can only assume that poverty incidence has increased as well.

7. Concluding Remarks

Although the countries of Armenia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Uzbekistan gained independence at the same time, they differed significantly in terms of initial conditions (natural endowments, economic, political and social) and the speed and sequence at which they embarked upon the wide-ranging spectrum of economic and political reforms. These factors have invariably played a significant role in determining the nature of the transition process as well as the current economic, political and social situation in each country. Due to the combination of factors involved, it is difficult to pinpoint dominant, determinant and causal factors of growth, employment and poverty trends in this region. Nonetheless, on acknowledging this, the paper sought to set aside general country-level contexts and explore more specific dynamics of the growth, employment and poverty nexus.

In-depth analysis has shown that these countries have all experienced severe declines in output leading to generally increasing unemployment, poverty and inequality levels and decreasing wages. Thus there appears to be a clear and direct link between a fall in economic growth and a rise in poverty. Although, one might be tempted to think that the reverse link is just as clear, i.e. an increase in economic growth would 'trickle-down' and benefit the general population through a reduction in poverty, the analysis in the previous section has served to prove that this is certainly not the case, at least not in the six countries examined in this paper.

One needs only take a glance at table 6.1 to see that in at least one country (and most probably three), the return to positive economic growth has not been associated with a reduction in poverty. Moreover, in the set of countries where poverty incidence *has* fallen simultaneously with the revival in economic growth, the reasons behind this lie deeper than a mere overall economic improvement. In both type of scenarios one needs to observe the pattern and sources of growth as manifested in the type of employment generated in order to understand the impact that growth has had on poverty. From this perspective, in the first set of countries where growth has not led to falling poverty, the explanation is that growth has not occurred in high-productivity, so called 'employment-friendly' sectors.

For instance in Tajikistan and Uzbekistan, the return to growth has been driven by an expansion in the low-productivity agricultural sector, where an increase in the amount of workers has led to a fall in labour-productivity and thereby a fall in incomes and increased poverty. If on the other hand, growth had been concentrated in the high-productivity industrial sector labour-productivity would most probably have increased leading to rising wages and falling poverty. In Kyrgyzstan, although growth *did* occur in the industrial sector (as a result of the Kumtor gold-mine expansion), it was not sufficiently labour-intensive to lead to a reduction in poverty, at least not immediately. The fact that poverty did begin to fall from 1999 onwards could be an indication that there was a time lag before the benefits of growth became apparent. On the other hand employment did expand in the agricultural sector, but again this meant the occurrence of decreasing returns to scale as output in the sector continued to decline due to the low-productivity nature of the sector.

In the second set of countries, where growth *has* been associated with a fall in poverty incidence, this can be attributed to the fact that economic growth was accompanied by an expansion of employment alongside rising productivity and real wages. For instance in Kazakhstan, the revival in growth was almost exclusively due to increased oil-production in the high-productivity industrial sector, leading to increased employment and labour-productivity and consequently higher wages and falling poverty. In Armenia, although growth has been relatively high and stable for more than half a decade, it is only in recent years that poverty incidence has fallen by a noticeable amount. Coincidentally, it is also only in recent years that growth has picked up in the high-productivity industrial sector, implying a close link between higher growth, increased productive employment and poverty reduction.

Although, the revival in economic growth in Moldova is relatively recent, it appears that growth has at least to some extent occurred in the employment-intensive industrial sector and has thereby had a poverty reducing impact. In fact, the impact on poverty appears to have been quite substantial already, thus if growth continues to increase the impact on poverty levels should be significant. Similarly, for Armenia, Kazakhstan and Tajikistan, economic growth has been particularly strong in the past few years; and considering that there usually is a time-lag before the effects of growth are to be seen, it will be quite interesting to see what happens to employment and poverty levels in the coming years. Similarly, the near future of Kyrgyzstan should be interesting, as economic growth in 2002 fell for the first time in five years. As for Uzbekistan, what will be most interesting to see is whether in the near future data on the country will become more readily available and most importantly, reliable.

From the above analysis of the linkages between economic growth, employment and poverty in the six transition economies, one conclusion that can be drawn is that from a poverty reduction perspective, economic growth must be employment-intensive. There is no critical mass by which employment-intensive growth will reduce poverty, yet the implication of this is that growth should be concentrated in the high-productivity sectors of industry and services. However, this might be easier said than done given the legacy of *dirigisme* with large state-controlled industries and given the fact that although privatisation has progressed, the private sector still plays a weak role in generating employment. Due to the labour-intensive nature of small-scale private firms, policy should be directed at stimulating their growth otherwise employment will continue to lag behind growth and widespread poverty will persist.

Yet, given that a significant number of those who are employed are also poor – the so-called 'working poor', employment-intensive growth alone is not sufficient in achieving significant and sustained reduction in poverty. Policy makers must also be concerned with whether the poor have the capacity, the necessary skills and access to assets, resources and services enabling them to benefit from whatever growth in employment may occur. Moreover, the kinds of activities in which the 'working poor' are involved are often in the informal sector which, given the virtual collapse of the formal sectors, has assumed significant importance in many transition economies. Thus efforts to reduce poverty will have to focus on the informal sector, acknowledging this sector as not a problem for development, but rather as a starting point for achieving development and poverty reduction in transition countries in general.

Appendix A

Classification system for transition indicators[1]

Large-scale privatisation

1 Little private ownership.
2 Comprehensive scheme almost ready for implementation; some sales completed.
3 More than 25 per cent of large-scale enterprise assets in private hands or in the process of being privatised (with the process having reached a stage at which the state has effectively ceded its ownership rights), but possibly with major unresolved issues regarding corporate governance.
4 More than 50 per cent of state-owned enterprise and farm assets in private ownership and significant progress on corporate governance of these enterprises.
4+ Standards and performance typical of advanced industrial economies: more than 75 per cent of enterprise assets in private ownership with effective corporate governance.

Small-scale privatisation

1 Little progress.
2 Substantial share privatised.
3 Nearly comprehensive programme implemented.
4 Complete privatisation of small companies with tradable ownership rights.
4+ Standards and performance typical of advanced industrial economies: no state ownership of small enterprises; effective tradability of land.

Governance and enterprise restructuring

1 Soft budget constraints (lax credit and subsidy policies weakening financial discipline at the enterprise level); few other reforms to promote corporate governance.
2 Moderately tight credit and subsidy policy but weak enforcement of bankruptcy legislation and little action taken to strengthen competition and corporate governance.
3 Significant and sustained actions to harden budget constraints and to promote corporate governance effectively (e.g. through privatisation combined with tight credit and subsidy policies and/or enforcement of bankruptcy legislation).
4 Substantial improvement in corporate governance, for example, an account of an active corporate control market; significant new investment at the enterprise level.
4+ Standards and performance typical of advanced industrial economies: effective corporate control exercised through domestic financial institutions and markets, fostering market-driven restructuring.

Price liberalisation

1 Most prices formally controlled by the government.
2 Price controls for several important product categories; state procurement at non-market prices remains substantial.
3 Substantial progress on price liberalisation: state procurement at non-market prices largely phased out.
4 Comprehensive price liberalisation; utility pricing which reflects economic costs.
4+ Standards and performance typical of advanced industrial economies: comprehensive price liberalisation; efficiency-enhancing regulation of utility pricing.

Trade and foreign exchange system

1 Widespread import and/or export controls or very limited legitimate access to foreign exchange.
2 Some liberalisation of import and/or export controls; almost full current account convertibility in principle but with a foreign exchange regime that is not fully transparent (possibly with multiple exchange rates).
3 Removal of almost all quantitative and administrative import and export restrictions; almost full current account convertibility.
4 Removal of all quantitative and administrative import and export restrictions (apart from agriculture) and all significant export tariffs; insignificant direct involvement in exports and imports by ministries and state-owned trading companies; no major non-uniformity of customs duties for non-agricultural goods and services; full current account convertibility.
4+ Standards and performance norms of advanced industrial economies: removal of most tariff barriers; WTO membership.

Competition policy

1 No competition legislation or institutions.
2 Competition policy legislation and institutions set up; some reduction of entry restrictions or enforcement action on dominant firms.
3 Some enforcement actions to reduce abuse of market power and to promote a competitive environment, including break-ups of dominant conglomerates; substantial reduction of entry restrictions.
4 Significant enforcement actions to reduce abuse of market power and to promote a competitive environment.
4+ Standards and performance typical of advanced industrial economies: effective enforcement of competition policy; unrestricted entry to most markets.

Banking reform and interest rate liberalisation

1 Little progress beyond establishment of a two-tier system.
2 Significant liberalisation of interest rates and credit allocation; limited use of directed credit or interest rate ceilings.
3 Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalisation with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks.
4 Significant movement of banking laws and regulations towards BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending to private enterprises; substantial financial deepening.
4+ Standards and performance norms of advanced industrial economies: full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services.

Securities markets and non-bank financial institutions

1 Little progress.
2 Formation of securities exchanges, market-makers and brokers; some trading in government paper and/or securities; rudimentary legal and regulatory framework for the issuance and trading of securities.
3 Substantial issuance of securities by private enterprises; establishment of independent share registries, secure clearance and settlement procedures, and some protection of minority shareholders; emergence of non-bank financial institutions (e.g. investment funds, private insurance and pension funds, leasing companies) and associated regulatory framework.
4 Securities laws and regulations approaching IOSCO standards; substantial market liquidity and capitalisation; well-functioning non-bank financial institutions and effective regulation.
4+ Standards and performance norms of advanced industrial economies: full convergence of securities laws and regulations with IOSCO standards; fully developed non-bank intermediation.

[1] The classification system is simplified and builds on the judgement of the EBRD's Office of the Chief Economist. More detailed descriptions of country-specific progress in transition are provided in the transition indicators at the back of this Report. The classification system presented here builds on the *Transition Report* 1994. To refine further the classification system, pluses and minuses have been added to the 1-4 scale since 1997 to indicate countries on the borderline between two categories. The classification 4* which was used up to and including 1996 has been replaced with 4+, though the meaning of the score remains the same.

Source: EBRD Transition Report 2000

Appendix B

Country-specific notes for table 4.1 on Poverty Incidence

Armenia: The poverty line is based on the actual consumption patterns of Armenian households, which was used to determine the cost of a 2,100 calories diet, i.e., the minimum food basket. The value of this food basket is used as the extreme poverty line: Households whose consumption falls short of the value of the minimum food basket are considered to be extremely poor.

Kazakhstan: The figure for 1990 is from Alam and Banerji (2000) and is taken from Milanovic (1998). From 1996 to 2000, the figures represent the percentage of the population with an income below the subsistence minimum, which is defined as a minimal income level for one person equal to the value of the minimal consumption basket (70% of which is comprised of spending on food). This indicator is being updated regularly, using the inflation index as a base. In 1999 a new consumption basket was introduced partly explaining the decline in poverty incidence in that year. The subsistence minimum in Tenge (local currency) for the above years was as follows: 2861 in 1996, 3505 in 1997, 3716 in 1998 and 3394 in 1999. Figures for 2001 and 2002 are from ADB 2003.

Kyrgyzstan: The data is based on Household Surveys administered by the NSC (National Statistical Committee) covering 3,000 households from all regions of the country surveyed on a monthly basis. The estimation of the poverty line is based on average per capita expenditures (consumption) of household members. The poverty line, in compliance with the World Bank procedure nutrition pattern (food basket), is determined first for the third of the population with the lowest income. A monetary equivalent of the food basket providing 2100 Kcal/day is assumed as the extreme poverty line. The poverty line used for the above data-series is then established at the level exceeding the extreme poverty line by 66%, thus including non-food needs of the poor.

Moldova: All the data is based on Households Budget Surveys conducted quarterly since the second quarter of 1997 by the Department of Statistics and Sociology. The extreme poverty measure uses the equivalent of 50% of average consumption expenditures as the poverty line amounting to Lei 89.87 in 1997, Lei 83.52 in 1998, Lei 92.61 in 1999 and Lei 125.34 in 2000. The absolute measure represents the cost of both food and non-food consumption expenditure (the non-food component was estimated as the difference between the share of food consumption expenditure and the total consumption expenditure, on the basis of the effective structure of people's consumption) and is based on a poverty line of 270,67 Lei per month in 2002.

Tajikistan: The figure for 1990 represents 1988 and both figures are IMF estimates defining poverty incidence as a percentage of the population earning a per-head income lower than the minimum consumption basket.

Uzbekistan: The figure for 1990 is from Alam and Banerji (2000). The figure for 1999 is from ADB Uzbekistan Poverty Assessment

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