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# CHALLENGES OF TRANSITION ECONOMIES: ECONOMIC REFORMS, EMIGRATION AND EMPLOYMENT IN TAJIKISTAN

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## **BACKGROUND HISTORY AND RECENT SCENARIO**

Tajikistan is a small, low-income country, which over the last 20 years has gone through a traumatic transition following the break-up of the former Soviet Union, an ensuing civil war and the severe economic crash that accompanied these two events. It was left with a ravaged economy and a weak institutional base from which to manage its halting transition toward a more market-oriented economy. The independence that came in 1991 was extremely costly; previously fully integrated into the Soviet Union and the recipient of considerable net subsidies that helped to prop it up, Tajikistan was left without those benefits but with the legacy of a civil war that raged on until 1997, when a peace deal between the two parties was brokered with the help of the United Nations and neighbouring countries.

Tajikistan's unusual history and setting have powerfully influenced its economy. A very remote region with a mostly mountainous landscape and no access to seaports, it had the lowest income of all the republics of the Soviet Union and has the lowest income of the current Commonwealth of Independent States (CIS) countries. Although some heavy industry was moved to the region during the Second World War, Moscow mainly dedicated the Tajik Soviet Socialist Republic (SSR) to growing cotton. To that end, people were relocated and a vast irrigation network set up to increase yield and output. In the 1980s the Tajik SSR boasted some of the world's highest-yielding cotton, which was noted also for its very good quality (long staple). Based on

this marked comparative advantage within the USSR, Tajikistan became so specialized that it grew almost nothing else, food included, thereby setting the stage for later food shortages during the civil war and leaving food insecurity as one of the most pressing challenges facing the country today. Much of the infrastructure that survived the Soviet collapse was devastated during the civil war. While neighbouring republics were on their way to making a reasonably successful transition, Tajikistan's economy spiralled downwards, with official gross domestic product (GDP) bottoming out in 1996 at nearly 70 percent below its 1991 level. Industrial output, most of which had arisen within a centralized command structure, was largely shut down. Agricultural productivity suffered immensely, as machinery was destroyed and lands abandoned. Food grown from personal plots, together with food aid from donor nations, were the only defences against starvation, as the collectivized agricultural land was almost entirely devoted to growing cotton, and people lacked the income to buy enough imported food.

It was not until the early 2000s, with the restoration of peace allowing much-needed macroeconomic stability, that the economy began to show signs of consistent growth, and some underemployed resources were brought back into use. To all intents and purposes, Tajikistan's economic transition from a centrally planned system toward a more market-oriented system only began around 1997; most of the ensuing period has been as much a story of recovery from war as of that transition. Meanwhile, the world energy crisis, climate change and demographic pressures have all had adverse effects on this landlocked, food-importing nation. The world food crisis of 2008 brought belated recognition of the vulnerabilities of such countries as Tajikistan.<sup>1</sup> New food price spikes of 2011 signalled that volatility in food markets is likely to be a permanent feature of the global macro environment for the foreseeable future and that policy needs to reflect this unfolding reality.

Analysis of labour markets, social protection and the interface between them must be undertaken against the background of the above facts. Since a majority of Tajikistan's population (and, particularly, poor people) live in rural areas that grow cotton, societal welfare is inevitably linked to this product. Much of the vulnerability of Tajikistan's poor people is due to the institutional collapse of the collective farming sector, which has forced the economy to redirect a good share of its basic resource—labour—to employment outside its borders, in particular in Russia. The extent of this switch is reflected in Tajikistan's very high ratio of remittances to GDP, reaching an estimated 30–50 percent in 2008. Given the massive inability to create remunerative employment at home, Tajikistan has been fortunate to have access to a market in Russia for primarily young male immigrants. Their remittances have become the economic mainstay of many receiving families, as well as being an indirect boon to others, as the circulation of the remittances within the domestic economy encourages local production of services and other non-tradables. On the other hand, the emigration/remittance phenomenon creates new vulnerabilities and concerns for Tajikistan. Remittances are not available to all families and can be an unstable source of income at both family and aggregate levels, due in part to economic factors (witness the decline in remittances in 2009 as a result of the global financial crisis) and in part to political ones.

The social protection challenge involves developing a system that complements and eases the welfare problems characteristic of such a remittance-based system, while also addressing the needs of the families for whom this source of income does not provide support. The severity of the challenge derives from the low average income level; the particular need to defend people against the exigencies of an unfamiliar market economy, including especially food insecurity (a traditional problem in this country); and the fallout from the population movements implicit in such a high level of emigration. As in any low-income country, an important first step is to generate pro-poor growth, which means strong employment-creating growth. Tajikistan has not been successful in this regard, partly due to circumstances exogenous to the country and to its policy makers—the severe macroeconomic crash and the loss of capital during the civil war, and the decline of the dominant cotton sector since the days of the Soviet Union. Complementing these factors has been the government's failure to expedite a transfer of land to small farmers (former workers) so that they could in the first instance produce food for subsistence and in the second develop a diversified, productive and employment-creating small commercial agriculture. A challenge for the future is that a number of the hoped-for motors of growth and sources of foreign exchange appear to be capital-intensive and hence not job-creating. If this proves to be the case, then even as growth continues and other products overtake cotton as major exports, a severe employment challenge will remain, which will continue or intensify the need for good social protection policies.

In short, Tajikistan now faces strong and overlapping challenges in the areas of growth, employment generation/inequality and social policy. Action on each of these objectives must be closely coordinated for success in each to be achieved, especially in the areas of employment and social protection. Maintaining growth of the domestic economy to the point where per capita incomes quickly recover their pre-crisis peak is a major challenge given the currently low investment rate, the unattractive setting for investors, local and international, and the tight monopolistic control of resources exercised by a group of insiders, which deters employment creation and prevents or discourages the entry of competitors in some industries, such as cotton processing and trade. And even if the rate of growth is reasonably adequate, it may not be sufficiently employment-creating for its benefits to trickle down to the population. As noted, the capital intensity of such planned motors of future growth as energy development, minerals etc. implies limited potential for job creation. A more general factor, noted in several other countries of the former Soviet Union, is the strongly monopolistic economic structure that naturally emerges from the privatization of the large production units that comprise a centralized system. State enterprises are replaced by a few large private or pseudo-private monopolists, leading to a concentration of capital income and to monopsonistic behaviour that keeps prices low to producers (such as cotton farmers) and thus lowers the potential for job creation. Under a central planning system, the state takes responsibility for allocating everyone a job somewhere in the economy. In a market system there is no institution to perform that function; as a result, in most developing countries the informal sector absorbs much of the labour that has no decently remunerative job alternatives. Success on the employment front in Tajikistan will depend on small-scale agriculture (cotton, production for home consumption, and other) and on labour-absorbing (usually smaller-scale) activities outside agriculture. In

former Soviet bloc countries, the job-creating potential of informal activities is less evolved than elsewhere in the developing world for various reasons, including a relative lack of entrepreneurial experience and the only gradual development of the informal markets in which microenterprises can sell.

It is somewhat unclear how much future demographic developments will accentuate the employment challenge from the labour supply side, where there is currently a major surplus. Tajikistan was in the midst of a bout of very fast population growth (around 3 percent per year) when the crises of the 1990s hit. Such a rate would be a serious barrier to the developmental hopes of most countries, but especially one with the limited options of this country. Since then, however, population growth has fallen considerably, to an estimated 1.5–1.9 percent by 2010.<sup>2</sup> On the skills side there are a number of challenges, including that until the government fixes more clearly on a plan for the country's development over the coming decades, it is hard to guess what types of education and training will be the most in demand.

Tajikistan faces at least two other major challenges to achieving a bright future. One is environmental. The cotton monoculture has been very destructive, and restructuring the large economically inefficient and environmentally damaging farms that date from the Soviet era is a major part of the answer. Other steps are also needed. Finally, the country has become the chief conduit for opium moving from East Asia to Russia, Western Europe and beyond and is, accordingly, subjected to the dangers associated with that industry, including corruption and addiction.

Its recent history and current situation mean that Tajikistan presents many difficult challenges in the area of social protection policy. What is feasible and desirable is greatly affected by the limited institutional capacity to organize and deliver, and by the high level of emigration and the associated special problems and conditions. As a legacy of the Soviet system, Tajikistan has a non-contributory pension system directed mainly at old people, disabled people and survivors (Son, 2011: abstract). This system has greatly shrunk since 1992 and is not significantly progressive in its distributive effects, if progressive at all. The low incomes, the mainly rural and agricultural population and the weak institutional base from which to develop a reformed system of social protection all suggest that such protection may be most efficiently pursued on the production side or possibly by making the migration process more efficient. The seriousness of food insecurity highlights the importance of accelerating land distribution such that families can defend against it through their own production. Education presents a series of challenges and dilemmas. Health services have deteriorated seriously and need to be rebuilt; preventive interventions warrant attention in low-income countries such as Tajikistan given the evidence that they can generate very high returns on low costs (e.g. from provision of micronutrients, early detection of cancer etc.).

## ***THE MACROECONOMIC SETTING***

The drastic macroeconomic decline during 1988–1996 provides the background to the current challenges faced by the country. The precise nature of the current macroeconomic challenge, however, depends also on how one interprets the failure of the economy, judging by the official figures, to get back to its former peak level of output, much less approach the former peak level of GDP per capita even after 14 years of strong recovery. Various factors are or could be involved, including:

- i) Given the extremity of the economic crash caused by the dissolution of the Soviet Union and the ensuing civil war, it was possibly unavoidable that it would take decades to recover the lost ground. After a gradual acceleration between 1997 and 2000, growth (according to official statistics) then peaked over 2000–2005 at around 10 percent per year, before slowing to an average of 6.5 percent over 2006–2011. Two more years at that rate will bring official GDP back to the average for 1987–1989, but it will take 12 years or so to do the same for GDP per capita.
- ii) The huge loss of capital during the transition and the civil war lowered the potential output level of the economy such that only with considerable new investment can it much surpass the previous peak, especially in terms of per capita output.
- iii) The transition from a centrally planned towards a more market-oriented economy may have rendered some of the capital—physical, human and institutional—less productive under the new system, although it may also have raised the level of efficiency of resource use in other respects.
- iv) Serious mismeasurement of GDP and gross national income (GNI)<sup>3</sup> may have exaggerated the economy's initial decline and confused the picture with respect to its subsequent recovery. The failure to capture either informal-sector income or illegal income (drugs, other), whose shares of true GDP have been growing, has probably contributed to a considerable understatement both of the growth of that variable and of its current level relative to the previous peaks. In addition, another special consideration is that, with the last decade's rapid growth of earnings abroad and resulting remittances, GNI has been increasing substantially faster than GDP, making the latter, even when correctly measured, a downward-biased indicator of income growth.<sup>4</sup>

With national accounts aggregates possibly very seriously understated and with inadequate data on how the components of the underground economy have been changing over time, it is clear that economic policy must be made using limited macroeconomic evidence. There is no reason to doubt that growth out of the extreme economic trough in which the country found itself by the late 1990s has been rapid, but now, with the underground economy possibly equal to or greater than the official one, it is possible that if the latter's growth has slowed to zero, a reported GDP growth rate of 6 percent would in fact be only one of 3 percent, whereas if the underground economy continues to grow faster than the official one, that official 6 percent might really mean

8–9 percent. Analysis of labour market and social protection issues cannot rely a great deal on macroeconomic data; thus conclusions on how well the growth process is contributing to success or failure on the labour front must be based mainly on labour data alone. Fortunately, this is somewhat more reliable, despite some serious deficiencies.

### ***International trade***

Tajikistan is fairly typical of very small countries in having only a couple of products that dominate total export revenue, and a low share of world markets in each—less than 4 percent for cotton and less than 5 percent for aluminium. Promising new exports include hydroelectric power, where Tajikistan ranks eighth in the world in terms of exploitable resources, with 4 percent of the world's cost-effective potential.

Like other small open economies, Tajikistan is strongly influenced by cycles of the world economy. The fall in world market prices for aluminium and cotton during the world crisis led to a trade deficit that in recent years reached 35 percent of GDP, essentially the other side of the coin from the large net inflow of remittances. The problem of price shocks in the world markets for exported raw materials and in the flow of remittances is likely to remain for many years.

### ***Savings and investment***

According to official figures, gross fixed investment accounted for 14 percent of 2005 GDP; about two thirds of it was public. Subsequently this ratio rose to a peak of 22 percent in 2007 before slipping back to 19 percent in 2010. Private investment is of particular concern; although its share of GDP has risen since a trough around 2000, the average over 2007–2010 has been only 6 percent of GDP, far too low to be the basis for a sustained level of growth. Part of the understatement of GDP (e.g. failure to capture most informal activity) referred to above is presumably matched by a perhaps comparable understatement of private investment.<sup>5</sup> Further, some expenditures which in reality constitute a form of investment are not included, most prominently expenditures undertaken in connection with emigration (see Section 3).

### ***The financial system and financial intermediation***

Formal credit markets remain very underdeveloped in Tajikistan, not surprising given the recent and still partial transition towards a market economy and the low levels of savings in the formal economy, leading to low deposits in the financial intermediaries. Allocation of credit to private businesses is correspondingly low, at 5 percent of GDP, and very few funds find their way to start-ups and small and medium-sized enterprises (SMEs). Among factors cited by businesses in describing the difficulty of obtaining loans, the most prevalent are collateral requirements and unofficial costs (bribes). In 2005, the collateral requirements for a loan were almost twice the principle, and unofficial payments were estimated at 10–15 percent of the loan value.

## ***THE ROLE OF REMITTANCES***

With earnings in Tajikistan being low, the external labour market (primarily jobs in Russia) offers a way around the shortage of decently remunerated jobs. The average wage earned by migrant workers in Russia is far above domestic levels; as of the early 2000s the net private return to an investment in migration to work temporarily in Russia was estimated at about US\$150 a month (World Bank, 2005), making it highly attractive and giving Tajikistan one of the highest ratios of emigrant remittances to GDP. To evolve into something more than a supplier of mainly labour to Russia and perhaps elsewhere, the country clearly needs to create a much stronger domestic demand for labour. In the meantime, emigration and the accompanying remittances serve the very useful safety valve function of providing remunerative jobs and supporting family incomes. At present this can be seen as by far the most important form of social protection in Tajikistan, albeit unplanned and not without its own problems. The presence of remittances on this scale raises two broad questions:

- i) Can they help to leverage a growth take-off, while still performing their function as stopgap to prevent incomes from falling too low?; and
- ii) What types of social protection and other policies can help to make the emigration/remittance process more efficient and successful, while assuring that its social costs are minimized?

To deal with these questions, one must look in some detail at the migration phenomenon in Tajikistan, its character, scope, trends and effects.

In the last decade or so a huge wave of mainly temporary emigrants from Tajikistan have made their way to Russia to seek work, mainly in response to the economic hardships discussed above. A command of the Russian language, visa-free entry to Russia and well-established migrant networks lower the barriers to and the costs of migration. There are still problems; most migrants are considered illegal, since they lack work and residence papers, and they are usually employed in '3D' work (Dirty, Dangerous and Disliked).<sup>6</sup> There have been reports of migrants being deprived of basic civil and worker rights in Russia, and some have been subjected to exploitative practices by employers and officials (Olimova, 2003). The lack of legal status makes them vulnerable to rent-seeking by corrupt officials; one survey (Jomnes et al., 2007: 20) found that they spend an average of US\$165 on bribes and various unspecified fees. All such barriers notwithstanding, there was a huge increase in emigration between 2004 and 2008, and remittances jumped from a few hundred million US dollars to over US\$2.5 billion (ILO, 2010: 55).

Recent estimates have put the number of Tajiks working abroad at a given time at between 600,000 and 1 million,<sup>7</sup> with approximately 95 percent of them in Russia. Even the lower figure represents almost 15 percent of Tajikistan's total working-age population, 30 percent of the males in that category, and an even higher share of young males. The corresponding remittance flows have been estimated at anywhere between 30 and 50 percent of official GDP;<sup>8</sup> a



recent figure from the National Bank of Tajikistan for 2011 is US\$2.96 billion or 45.4 percent of Tajikistan's official GDP.<sup>9</sup>

Dependence on remittances is essential to the livelihood strategies of many Tajik households. As they rose rapidly during most of the decade beginning in 2000, their contributions and effects no doubt also changed. By 2008 an International Labour Organization (ILO) household survey found that over 70 percent of families had at least one member abroad (29 percent had two or more) and that for 62 percent of households remittances accounted for 60 percent or more of income, with only 11 percent having no income of this sort (ILO, 2010: 12, 24). According to an earlier study (Brown et al., 2008: 11), which reported that up to 1 million people or 15 percent of the population lived in households whose main source of income was remittances, 37.3 percent of all households had at least one migrant member, with this figure rising to 42.3 percent for rural areas. In households that received them, remittances accounted on average for 59.8 percent of total income. Extreme poverty was found to be significantly less (18.8 percent) among households that received remittances than on average (32.2 percent); in the absence of remittances the incidence of poverty would no doubt have increased a great deal.<sup>10</sup> Remittances probably also help to reduce inequality,<sup>11</sup> which appears to be relatively high in Tajikistan, especially in the capital.<sup>12</sup>

Data from some years earlier (1999, it appears) indicated that remittances were important for all quintiles of families ranked by total household income but accounted for only 10 percent of that total income (although about 17 percent of earned income excluding value of food produced, gifts and social assistance) (Falkingham and Klytchnikova, 2006: 18). Presumably these shares rose significantly as the decade proceeded.

Under some conditions emigration/remittances also lower income insecurity, especially when jobs elsewhere constitute a sort of large and stable shelf of possibilities. Jones et al. (2007) note, though, that even for reducing poverty, migration can be an unreliable mechanism. For Tajikistan, where both income and food insecurity are major problems and challenges, that vulnerability is a serious cause for concern.<sup>13</sup>

As a medium-term economic strategy, migration has drawbacks at both the family and the national levels. A household's decision to send a migrant abroad implies costs and risks, which are weighed against the prospects of generating income locally. The cost of migration to Russia (estimated in 2005 at US\$410 on average) (Mughal, 2007: 101) probably renders it difficult or impossible for some poor families; given the infrequency of female migration, it is also beyond the capability of families without an eligible male who can emigrate. At the national level the great dependence on remittance income has become a significant political concern, since its sustainability depends on factors outside the country's control, and the macroeconomic effects of a serious barrier to Tajik migration to Russia would be dramatic. In November 2010, amid tensions surrounding the arrest of two Russian pilots in Tajikistan for alleged smuggling, the Russian government withdrew its ambassador and began to round up Tajik migrants for deportation under the pretext that they posed a public health concern to the local population.<sup>14</sup> Apart from vulnerability to Russian political influence, dependence on this income source exposes



Tajikistan to the the hydrocarbon-dependent business cycles in Russia. The effects of a downturn in Russia are a serious cause for concern in Tajikistan on this count as well.

Migration of the current magnitude naturally has major effects on the domestic labour market; the phenomenon reduces domestic labour supply, and the potential for it raises the wage level at which Tajiks are willing to take a local job (the reservation wage), induces some to remain unemployed instead of accepting a low-wage job and lowers the level of informality, as argued by Abdulloev et al. (2011).<sup>15</sup> A tighter labour market increases the wage bill faced by employers in Tajikistan and, together with a lack of people in some skill areas, can pose an obstacle to business success in some areas. Rising wages in response to labour market tightness are in general desirable, but when an economy is striving to build a base of private enterprise that will eventually provide better employment options, such increases can be premature if they slow the process of enterprise development that contributes to long-term growth.

Other specific concerns about emigration/remittances relate to their joint impacts on education and health (see below) and on child welfare in a more general sense.<sup>16</sup> By one estimate, more than 9000 children whose parents have migrated are left without supervision, exposed to child labour and not in school. Although non-governmental and international organizations have made efforts to address this problem, without organized government support it is difficult to achieve much progress.<sup>17</sup> Emigration is sometimes also blamed by some for further fracturing an already disjointed society.

A longer-term concern involves the risk that, if the country's economic prospects do not improve, especially in the agricultural sector, the export of labour will evolve into a permanent loss of human resources. The ILO reports that, despite its generally temporary nature, half of all emigrants are 'long-term', as defined by being away for over two years with either no or only brief trips back (ILO, 2010: 16).<sup>18</sup> If more and more migrants become less temporary, remittances will eventually fall, and their contribution to Tajikistan's current welfare and future economic development will be reduced. One risk is that temporary emigration may, by taking pressure off the system, pre-empt a strong effort by the Government of Tajikistan to create new jobs, mainly by supporting private enterprise, especially family agriculture and SMEs elsewhere in the economy. That emigration and remittances have been desirable and indeed essential mechanisms of survival does not render this longer-term policy question irrelevant. The international literature provides some limited guidance on it, if not with respect to clear conclusions, certainly with regard to questions to be asked and considered.

### ***Emigration/remittances as a motor of economic growth?***

When can migration revenues become a motor for growth? Studies of other countries that receive a high level of remittances have clarified some of the economic impacts and the potential to contribute to growth.<sup>19</sup> Beyond spending for family sustenance, considerable flows are in some cases directed at (i) improving housing and other longer-term assets; (ii) establishing businesses; and even (iii) contributing to the local community from which the emigrant has come (notable

in Mexico). All of these uses would be welcome in Tajikistan, since all could contribute to the future welfare of the population.<sup>20</sup>

The evidence available thus far, though not very encouraging with respect to its likely direct contribution to private-sector and overall economic growth, does have some promising elements. At one extreme, Brown et al. (2008: iii) report that 98 percent of remittance income is used to cover expenditures on food and other non-durable goods and services (including rituals such as marriages); their use is almost entirely non-business in character, with only 1.5 percent directed to private business, luxury goods or durables. Even for that small amount of remittance revenue going into business investment, there is no clear evidence that it has a positive effect. In fact, the study reports that households receiving remittances invest only half as much on business expansion as non-receiving households do. This is likely due in part to the gender structure of migration, since remittance-receiving households tend to lack males with an entrepreneurial bent, together with the probability that a lack of investment opportunities is often a factor contributing to the migration in the first place. The ILO (2010: 26, 36), drawing on a different survey, reports that 57 percent of remittances are used for immediate consumption needs, 12 percent saved for six months or less, and 11 percent saved for longer periods. The reasons given by the emigrants for seeking the income or for saving do not suggest much eventual business investment. Only 2 percent of respondents receiving remittances reported having an active bank account, and this seemed unrelated to whether they saved or not. The principal reasons for saving are ‘rainy day’, house purchase/maintenance, events, health care and tuition, with the category ‘other’ (which presumably includes investment) coming in at 8 percent. Only 5 percent of respondents were aware of saving schemes offered by the financial sector. More promising is the fact that 12 percent of households with family members working abroad are engaged in a business activity (ILO, 2010: 41). The main types are retail commerce, at 68 percent of the total, transport (10 percent), agriculture (9 percent) and services (6 percent); 52 percent of the businesses involve just one person, 47 percent involve other family members as well, and just 1 percent have other partners. Of these households with emigrants working abroad, 30 percent were interested in continuing or starting a business; given that 12 percent were engaged in a business, this implies that 18 percent were interested in starting one.

Several cross-country studies have pointed to promising benefits from remittances. Vaaler (2011: 1121), drawing on data from 61 developing countries over 2002–2007, concludes that remittances increase the availability of venture capital; they also increase business start-up rates in countries where the public sector is sufficiently small (and presumably less of an obstacle to business). The apparently very limited channelling of Tajikistani remittances into future productive assets (except for the part going to education) is unsurprising in light of the very low incomes of most receiving families and the still difficult context for private business. But it is important to know whether it is also in part due to a lack of entrepreneurial spirit, experience or talent (all understandable in an economy in transition) and/or to the barrier to new opportunities posed by the market power of the inner circle that controls much of the economy. It might also be that the presence of drug trafficking discourages other activities.<sup>21</sup>

## ***THE DOMESTIC LABOUR MARKET, INCOMES AND POVERTY***

For many years Tajikistan's labour market has been in a state of excess supply, leading to the massive exodus to Russia. Population growth reached a dramatically high rate of over 3 percent during the late 1980s, after which it fell markedly by the early 2000s, due to the combination of a high death rate, emigration and falling family size, and then climbed back by 2010 to somewhere between 1.4 and 1.9 percent. The average annual net growth of the working-age population was around 4 percent over 1996–2005, due to a rising ratio of working-age people to total population—a lagged effect of the earlier very fast population growth and a pattern that is likely to continue for some time, thereby keeping supply pressure on the labour market. Over 1991–1997 average labour productivity declined precipitously as the economy plunged; recovery since then has been marked but still far from sufficient. Productively absorbing the new entrants into the labour market will require continued fast and reasonably labour-absorbing economic growth for a sustained period.

While a member of the Soviet Union, Tajikistan had an essentially formal labour market, where the state was responsible for ensuring that everyone had a job.<sup>22</sup> Since then the public/state sector has shrunk, due in part to the transition to a more market-oriented system and also to the overall economic collapse brought about by the decline of the Soviet economy (to which Tajikistan remained substantially tied) and the ensuing civil war. Real wages fell drastically, as inflation soared. According to official figures<sup>23</sup> for 2000, the public and collective sectors (the latter in agriculture) provided about 56 percent of jobs; by 2007 this share had fallen to 47 percent and by 2011 probably to about 44 percent. Employment in the private sector has grown from 19 percent of the total around independence to an estimated 43 percent in 2000, 52 percent in 2007 and probably about 55 percent by 2011. Since very little private-sector activity is 'formalized' yet, in the sense of abiding fully by the sort of tax, labour and other legislation that prevails in the larger-scale private firms in market-oriented economies, the great bulk of this employment is appropriately defined as informal.<sup>24</sup> By the first decade of the present millennium, with domestic formal employment having fallen in both absolute and relative terms, nearly half of jobs were informal, and the number of workers emigrating to Russia was on the increase. Most estimates for recent years tend to put informal jobs at close to 50 percent of the total,<sup>25</sup> just a few percentage points below private-sector employment as a whole.

The increase in informal activities over the post-Soviet period has been related to the outflow of workers from the formal sector, the slow growth of private, formal employment and the growth of open unemployment. The informal sector acts as a large labour reserve during long-term transition processes like that through which Tajikistan has been proceeding, and as a shorter-term shock-absorber that expands in times of economic recession and shrinks during periods of economic recovery. Open unemployment has been a significant though not dominant phenomenon,<sup>26</sup> at 7.4 percent of the labour force according to the Living Standards Survey of 2004, and tends to be quite long-term, with nearly half searching for over a year and less than a quarter for under three months (Babajanov and Khakimov, 2010: 36, Table 17). According to

that survey, 70 percent of the total number of unemployed young people were actively looking for work, while 30 percent were trying to start their own business; only 5.5 percent had recourse to the public employment service, and 7.2 percent to the labour exchange.

The transfer of workers from formal to informal activities has been partly voluntary and partly not. One factor has been forced leave (without pay or with partial pay) at the initiative of enterprise management. In 2008, such individuals constituted around 3 percent of the full staff of those enterprises, but presumably the possibility of this outcome encouraged others to leave as well. The transition path in Tajikistan's labour force appears, at least in qualitative terms, to have followed the typical pattern in formerly centrally planned economies, as described by Dimova et al. (2006).<sup>27</sup>

As attested by its size, the informal sector in Tajikistan often provides a family's only or best alternative to unemployment; for many others it is the main alternative to emigration. Young people of working age have increasingly resorted to such employment, thereby sacrificing the unclear prospects of acquiring the pension rights traditionally associated with formal employment<sup>28</sup> and the currently even less clear rights to other government social services for the more regular and in many cases higher earnings that informal employment provides, despite its own limitations, including income instability due to the severe demand fluctuations faced by many small enterprises. Informal employment consists primarily of people engaged in their own agricultural family enterprises or outside agriculture in private microenterprises involved mainly in trade, services and construction, together with paid workers and unpaid family workers in smallish farms or commercial enterprises. A substantial number of formal-sector workers are also forced to work part-time in the informal sector to generate additional income. By one estimate (cited by Babajanov and Kakamov, 2010: 65), wages from formal employment constitute only one third of total household income, the remainder coming from the informal agricultural activities, remittances from migrant workers and some government subsidies.<sup>29</sup> As in other countries, informal employment often provides a part-time option for students and pensioners, who now make up about one sixth of all informal workers. Finally, as noted in Section 6.2 below, informal employment sometimes provides entrepreneurial experience that pays off increasingly over time.<sup>30</sup> The traditional downsides of informal employment are that it does not meet the labour and social guarantees of most formal employment (social security, pensions etc.), usually provides only modest incomes, and in many cases gives little chance of professional development. The very limited tax revenues generated from these activities constrain public budgets at all levels, contributing to a shortage of domestic investment and underfunded social services. Intensive use of child labour in seasonal agriculture adversely affects the development of human capital in the country.

Given the above complexities in how and where labour is applied, wage levels and trends are hard to estimate. Babajanov and Kakamov (2010: 55) note that official salaries in the private sector are currently higher than in the state sector, but that only 25–30 percent of the wage is formalized, with the remainder paid as part of an off-the-books surcharge; this component of the wage does not provide social security benefits. In many companies a maximum of 25 percent of employees are 'officially' registered as being employed.

**Table 4.1: Sources of Cash Income, Tajikistani Households, 2006**

Source of income	Percentage of total cash income
Remuneration from a state-owned institution	15.2
Remuneration from a <i>kolkhoz</i> (collective farm) or <i>sovkhoz</i> (state farm)	11.6
Remuneration, private farm, not belonging to the family	1.3
Remuneration, other private business	8.1
Cash income from farming activities	24.4
Cash income from other activities	17.4
Cash transfers from the state	9.7
Cash income from household members abroad	10.6
Other	1.6
Total	100.0
<i>Source:</i> Olimov (2007: 55). The period to which the data refer is not made clear, but the survey was undertaken in 2006 ( <i>ibid.</i> : 8).	

Table 4.1 provides one estimate of the sources of work-based cash income of Tajikistani families in 2006. Meanwhile, Olimov's (2007: 8) data on total income indicate that food for home consumption amounts to 14.7 percent of official GDP, and wages paid in kind and barter exchanges to 13.2 percent.<sup>31</sup> Olimov (*ibid.*: 9) estimates home production of goods and services for consumption and sale at 23.3 percent of total income, with food products at 14.8 percent of GDP.<sup>32</sup>

As would be expected in light of the fast growth and the surge of emigration and remittances since the late 1990s, there appears to have been a large decline in poverty over that period. According to the Living Standards Surveys of 2003 and 2007, the percentage of families without income adequate to satisfy basic needs fell from 72.4 to 53.5 percent (Babajanov and Khakimov, 2010: 12). Poverty incidence does not differ much between urban and rural areas, being only slightly higher in the latter; as of 2007 the level of absolute poverty in urban areas (18.9 percent) was actually higher than in rural areas (16.4 percent). The fact that poverty is still widespread is reflected in the high (73.7 percent) share of total household expenditures going to food.<sup>33</sup> Presumably poverty remains well above the levels of the later Soviet years.

The level of poverty reflects low wages in general. Those of women are especially low, with average earnings far below those of men—as of 2000 the ratio was 43.2 percent according to official statistics; by 2006 it had reached 55.3 percent. One major source of the gap is gender segregation of employment. The highest proportion of women are found in agriculture, health care, education and culture, arts and sciences—the four sectors where wages and salaries are below the economy-wide average. Even in agriculture, with the lowest average earnings, women earn almost one third less than men. In low-income sectors with highly qualified personnel (education, health and culture) women's earnings are again well below men's<sup>34</sup> The two sectors where women's wages do not differ significantly from those of men—public administration and financing and sectors of material production—employ only 4.2 percent and 0.8 percent of the

total, respectively, and have low female shares of employment (28.5 percent and 17.9 percent, respectively). In light of these gaps one may guess that an important factor in encouraging women to enter informal work is the income earned. In 2008 the average nominal monthly wages and salaries for women in the informal sector was TJS235.4—61 percent of the figure for men (TJS383.8).<sup>35</sup>

Reflecting the urgent need of some low-income women for employment is the organized informal labour market for women called *mardikorov*. This market connects employers needing workers to do traditionally female types of jobs (such as weeding, picking fruits and vegetables, canning or pickling, washing clothes or dishes after any major events, house cleaning or guest services) for very short periods of time, with terms of work established case by case. Some jobs are carried out by individuals, others by groups that may be pre-organized or may form at the market based on the needs of employers. A teamwork form of labour organization brings together women living in a village and headed formally by a female ‘Brigadier’. Part of this spontaneous female labour market is seasonal. The share of all able-bodied women involved in this market is low, perhaps 0.5–1.0 per cent. Most are from very poor families—people who, faced with more attractive options, would not have entered this market. Some are widows, abandoned by their husbands or having three or four dependents and unmarried. Some with complete secondary education or even higher education, after failing to find jobs corresponding to their skills, have recourse to the *mardikorstvo*. Other poor women with an equally urgent need for jobs engage in prostitution, fraud, drug trafficking etc. Although informally employed *mardikorstva* workers can, depending on the complexity and harshness of work, earn around TJS25–60 per day, considerably higher than the wages of men and women employed in the formal sector, due to the short-term and unstable character of the work, the earnings are usually only enough to feed the family.

The situation of child labour in Tajikistan is disturbing, consistent with the high incidence of poverty and the absence of the many young men working abroad. According to the UNICEF Multiple Indicator Cluster Survey (MICS) of 2005, 200,000 children aged five to 14 were engaged in child labour (excluding non-intensive household chores), with 65,000 of these in paid work. Most were attending school, but 20,000 were not, because of their work (Baschieri and Falkingham, 2007: 7–8). Child labour was more frequent among those in the poorest households (15.6 percent) than among those in the richest ones (9.5 percent). The international fund Save the Children (2008) reveals that Tajikistan has the worst forms of child labour, especially in the agricultural sector.

## **STRUCTURAL PROBLEMS OF THE TAJIKISTANI ECONOMY: THE FOOD AND ENERGY CRISES**

Despite the many areas of concern, the period between 2000 and 2007 was one of considerable advance and recovery. The economy managed to get closer to pre-independence levels of output in important areas such as agriculture. But the multiple crises that have shocked the world since 2007/08 have once again highlighted economic vulnerability, even and in some cases especially in remote and isolated nations such as Tajikistan.



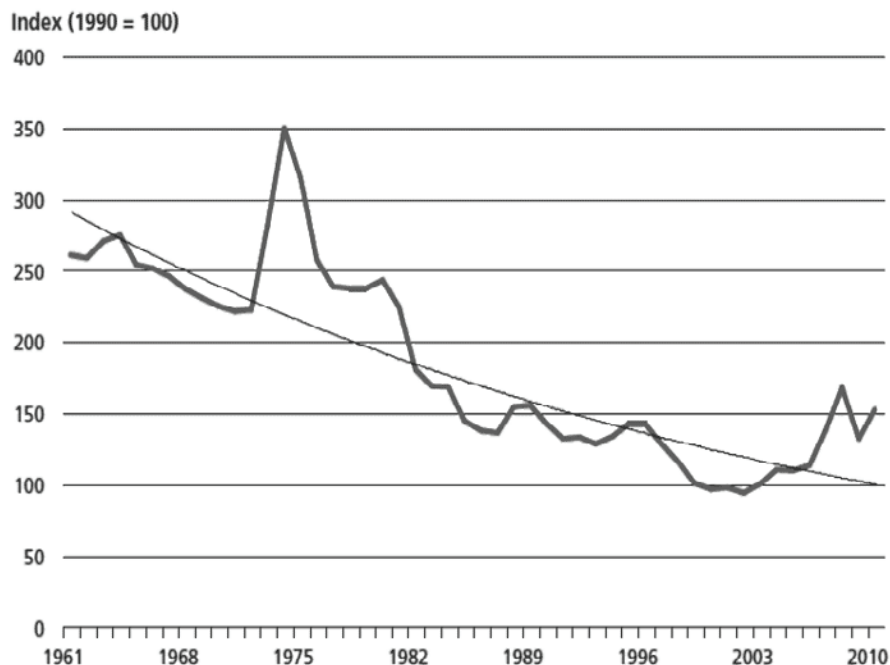
As the global financial crisis hit the Tajik economy through its effects on remittance flows from migrant workers in Russia, one of its main consequences was to exacerbate an already looming food security crisis. The official growth rate dropped from 7 percent in 2008 to 3 percent in 2009, external remittances dropped from an estimated US\$2.6 billion to US\$1.6 billion, and there was a substantial fall in foreign direct investment and humanitarian assistance. Compounding these woes, Tajikistan faced—and still faces—a crippling energy and fuel crisis. Oil exports from Russia have recently been subjected to export taxes, and completely banned for some periods. Climate change is lowering water levels in the river systems, a potentially catastrophic scenario for a country that relies entirely on hydropower for its energy supply. An extraordinarily severe winter in 2007/08 sparked a calamitous energy crisis during 2008 and brought into focus the fragility of Tajikistan's water–energy nexus.

### ***Food insecurity***

While international food price spikes such as that of 2008 are not unprecedented, several fundamental differences between that crisis and previous ones have implications for nations such as Tajikistan. One involves the likelihood that real agricultural prices will not soon resume their decades-long downward trend but will more likely stabilize or rise due to changes on both the demand and supply sides of the market. Demand pressure from a growing global population (surpassing 7 billion) is now coupled with increasing incomes in many developing countries, creating a burgeoning demand for meat, vegetable oils and other high-end food products and putting pressure on the agricultural land base. The introduction of biofuels as an alternative energy source has created a new and competing use for food crops.<sup>36</sup> On the supply side, the consistent decline in investment in agriculture in developing countries and, most critically, in research and development, and the associated deceleration of productivity growth, is a defining difference from previous decades (Timmer, 2009). In countries such as Tajikistan the increase in food prices is not at present a sufficient impetus to such investment; lack of rural infrastructure, limited access to modern inputs and irrigation, poor roads and storage facilities, rudimentary technology, limited knowledge of modern farming techniques and limited access to credit all contribute to low productivity, limited participation in markets and lack of investment. In Tajikistan, as in most low-income food-deficit countries, the structural solution to the problem of food insecurity lies mainly in increasing the production and productivity of small family farmers.

Regardless of the longer-term agricultural output and price trajectories, it is generally agreed that the world has entered an era of food price volatility due to a combination of the increasing role of financial markets in price determination, new links between agriculture and energy markets, and changes in agricultural trade policies that have led some developing countries to rely more heavily on trade in staples and others to move towards self-sufficiency (Naylor and Falcon, 2010). Energy-related inputs (fertilizers, pesticides, and fuel for farm machinery and transportation) represent a larger component of agricultural costs than before, and petroleum prices serve as a reference point for the profitability of maize-based ethanol and hence affect the demand and price of maize. With the unpredictability of today's energy markets, the increasing links to and dependence on them will be a source of turbulence in international agriculture



**Figure 4.1: FAO Food Price Index in Real Terms, 1961–2010**

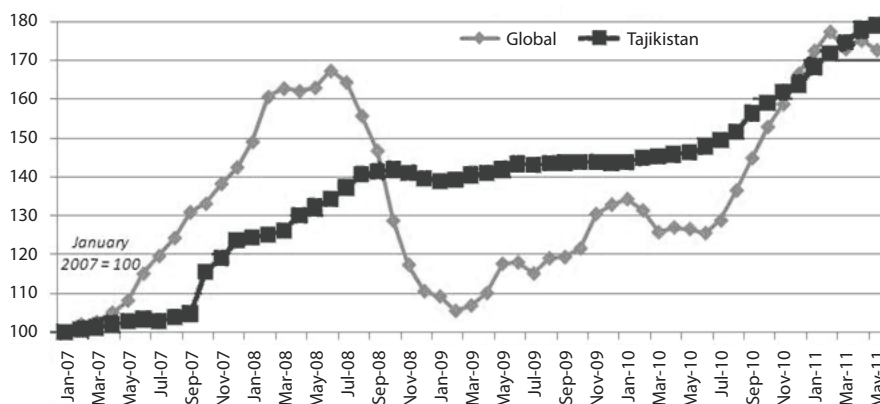
*Notes:* Calculated using International prices for cereal, oilseeds, meats, dairy products and sugar. The FAO Food Price Index is calculated from 1990 to the present on a regular basis; in this figure it has been extended back to 1961 using proxy price information. The index measures movements in international prices and not necessarily domestic prices. The United States GDP deflator is used to express the Food Price Index in real rather than nominal terms.

*Source:* Calculations by FAO.

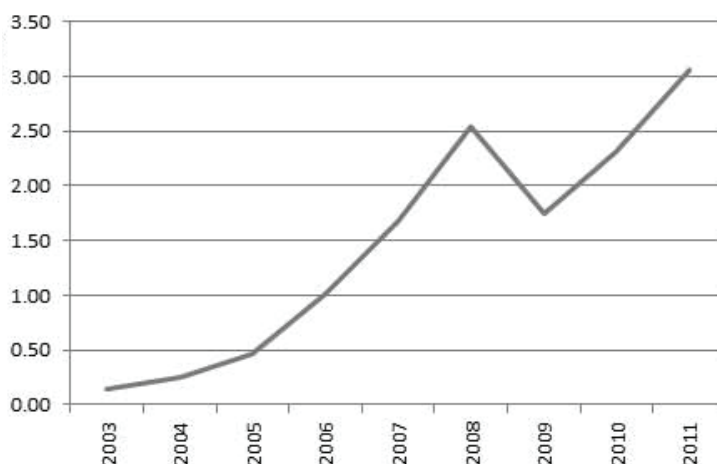
markets. Furthermore, climate change may lead to more frequent and extreme weather events and the consequent shocks on agricultural markets from the supply side.

Real international food prices have been increasing since the early 2000s (Figure 4.1), culminating in the price spike of 2007–08. Although they dipped in 2009, they have remained well above their trough of around 2000 and reached an even higher peak in early 2011 (Figure 4.2). In the lead-in to the recent spikes, the trend in Tajikistan follows the global pattern, albeit with less volatility. Unfortunately, just as Tajikistani food prices began to increase during 2008, the flow of remittances began to decline (Figure 4.3), putting a double strain on household budgets. When international food prices dropped sharply after July 2008, the local prices in Tajikistan remained near their peak levels and have increased further as the second upswing in world food prices took hold in 2010. Over 2007–2011 the net increase in Tajikistan has been very close to the global increase.

Food insecurity has been a feature of the Tajik economy from well before the recent grain price spikes, so the current global context exacerbates a chronically precarious condition. The

**Figure 4.2: Food Price Trends in Tajikistan and Globally, 2007–2010**

*Source: State Statistical Office of Tajikistan, FAO; UNDP calculations.*

**Figure 4.3: Remittances for Tajikistan 2003-2011 (US\$ Billions)**

*Source: World Development Indicators Database, World Bank*

UN Food and Agriculture Organization (FAO) (2010) categorizes Tajikistan as one of 22 countries in a protracted food crisis, based on three criteria:

- i) having been faced by crises (whether human-induced or natural) for an extended period of time –Tajikistan has experienced 11 such crises between 1996 and 2010;
- ii) more than 10 percent of the country's overall official development assistance (ODA) has taken the form of humanitarian aid since 2000 –13 percent for Tajikistan between 2000 and 2008; and

- iii) being classified as a Low Income Food Deficit Country—between 2005 and 2007, 30 percent of Tajikistan's population was deemed to be malnourished; for the 22 countries in question the average rate of malnourishment was 37 percent; ranging from 14 percent (Ivory Coast) to 69 percent (Democratic Republic of Congo). By contrast, China and India had rates of 15 percent, and the figure for all other less developed countries taken together was 14 percent.

Tajikistan faces serious natural constraints to food production. Its high, mountainous terrain leaves limited space for cropping—just 0.14 ha/person compared to the global average of 0.26 ha/person. The lack of good land has led to expansion into more marginal areas, heavy use of irrigation, and serious environmental damage in the form of land degradation, soil erosion, flooding, salinization and desertification.<sup>37</sup> An additional threat to food security is climate change. Temperature increases in mountainous Central Asia are predicted to reduce crop yields by 2.5–10 percent by 2020 and by 5–30 percent by 2050 (IPCC, 2007). The increased heat stress on crops and grasslands during summer months will increase the demand for irrigation. Higher frequencies of extreme weather conditions will also have an adverse impact. The effects of climate change on river flows are perhaps the most worrying concern. In the long term, as many glaciers in the mountains of Tajikistan shrink in size and disappear, the water flow originating in glacial melting will be reduced, leading to a significant long-term decrease in major river basins, with very serious potential implications for both agriculture and energy production.

### ***The energy challenge***

Electricity generation in Tajikistan is based almost entirely on hydroelectric stations, with nearly 70 percent of total capacity located at the Nurek power plant on the Amu Darya, east of the capital, Dushanbe. Tajikistan has a very large hydropower potential and currently uses no more than 5–10 percent of it. It thus remains a key sector for economic expansion, with several internationally financed dam projects, including Sangtuda and Zeravshan, currently underway. Technical challenges include an erratic pattern of runoff in some river basins that can have significant effects on power output.

The importance of energy to Tajikistan is hard to overstate. It provides a key input to the important aluminium sector and to agriculture, as well as being central to the general health and well-being of Tajik citizens. Many of the towns and villages in the mountains and foothills are located above the watercourses. Prior to the transition, electrically powered water pumps raised water from the rivers to these settlements. Since then the periodic energy deficiencies have created shortages of drinking water, affecting even Dushanbe, where about 25,000 people in the eastern foothills of the city remain without a regular supply. Irregular pumping leads to stagnant water in reservoirs, forcing many rural residents to resort to irrigation ditches and as a result to become victims of such waterborne diseases as Hepatitis A and E and Typhoid Fever, leading causes of mortality in both adults and children. In the absence of electricity, residents have to build canals or irrigation ditches from lateral gorges located uphill to draw water using gravity; this requires considerable investment of material resources, labour and time. The irregular

supply of electricity, heating and water also disrupts the services of health centres and educational institutions. Faced with power shortages, households are also pushed towards alternative sources of energy for heating and cooking. The felling of trees and shrubs has led to worrisome declines in the coverage and volume of forests and at the same time has increased the risks of soil erosion and landslides.<sup>38</sup> Apart from firewood, the most readily available source of energy is biomass and animal waste; however, burning these products for heat and energy raises serious health concerns and diminishes the supply of organic fertilizer, which, given the difficulties in obtaining artificial fertilizers, is a critical ingredient to maintaining the natural fertility of the soil.

Success in the energy policy area is complicated in part by technical aspects. Water management is now a hugely politicized issue in the region, as upstream water withdrawals for irrigation and the creation of reservoirs along the Amu Darya have significantly reduced the flow reaching Turkmenistan and Uzbekistan. Tajikistan's future water management decisions, including the construction of dams for hydroelectric generation and further diversions for irrigation, are thus not only a major issue locally but also internationally. Central Asia's energy currently comes primarily from large hydropower dams in Tajikistan and the Kyrgyz Republic. When the region was under centralized Soviet management, the Torktogul reservoir in the Krygyz SSR and the Nurek reservoir in the Tajik SSR were primarily used as reservoirs for summer irrigation for the water-intensive agricultural sectors in the downstream Uzbek and Turkmen SSRs; in return these SSRs provided subsidized fossil fuels to their upstream neighbours to generate heat and electricity in winter. When the post-Soviet oil and gas systems were marketized after the independence of these CIS countries, the exponentially higher prices for gas and fossil fuels forced the Kyrgyz Republic and Tajikistan to switch to using their reservoirs as hydropower generators. Much of the conflict between these countries since then has focused around this water–energy nexus.

The importance of energy development to Tajikistan and the regional complications were both underlined by the calamitous energy crisis during the year after the exceptionally cold winter of 2007/08. Together with a drop in water inflow to the reservoirs came a drastic increase in its release to meet the huge surge in energy demand; this combination pushed the water levels in the dams dangerously close to the 'dead level' at which energy generation is no longer possible. To make things worse, the unprecedented winter water release caused flooding in the Syr-Darya basin and damaged the downstream countries' water infrastructure. The crisis was further exacerbated by drought conditions in the Aral Sea Delta during the following spring and summer when Uzbekistan and Turkmenistan needed water for their vast cotton fields. This sequence highlighted the vulnerability of the region's energy sector and its ancillary effects on food production, and underlined the sort of effects that climate change can have on such a fragile ecosystem.

A reliable energy supply is pivotal to the industrial and agricultural sectors of Tajikistan, which together account for 80 percent of domestic electricity consumption. Aluminium, the country's single most important export, relies on Tajikistan's ability to generate reasonably cheap hydroelectricity, and disruptions in power supply to it have a direct impact on Tajikistan's GDP. The agricultural irrigation system relies on electric pumps and electricity, and the water that it

provides to villages is, as noted above, directly important to the quality of life. It is, therefore, urgent not only to reverse the decline in energy supply but also to increase it above previous levels. Energy can provide a catalytic impulse to spur economic activity in Tajikistan and, managed properly, could help to achieve a pro-poor pattern of growth. Food security, domestic investment that relies on a good business environment, and agricultural productivity all stand to benefit from a concerted effort in the energy sector.

## ***FAMILY AGRICULTURE AND SMALL-SCALE NON-AGRICULTURAL ENTERPRISE***

Agriculture and small non-agricultural private enterprise are the two sectors that must generate the bulk of employment in Tajikistan for at least the next couple of decades. Successful development of small-scale family agriculture is especially critical to achieving improved food security and reducing poverty. This section reviews progress to date and the potential and challenges facing these two sectors.

### ***Family agriculture and the cotton sector***

Agriculture remains the main activity in the domestic Tajik economy, with about half of all employment and a fifth of output. Unhappily, the sector also houses the bulk of the country's poor and extremely poor people.

The Soviet era saw the Central Asian region become a leading exporter of cotton on the basis of extensive irrigation networks, a legacy that the economies still try to emulate.<sup>39</sup> Farmland was collectivized and organized into state farms (*sovkhoves*) and collective farms (*kolkhozes*), the former managed directly by the government, and the latter by an elected administration from the farm and with approval by the regional Party committee. Targets were set by Moscow. Both types of farm were very large—typically 1000 ha or more—and were a principal unit of social organization in rural Tajikistan. Each family was provided with a house and adjacent plot (kitchen garden) to grow food for household consumption; in return the family worked on the large farm, whose management paid their salaries and was responsible for providing health care, education and social welfare.

While production flourished, the monoculture had drastic ecological effects, including widespread desertification, salination and, most notably, the drying up of the Aral Sea. Inputs, including fertilizer and seed, were obtained through the command system. At independence the new nation states no longer had automatic access to these inputs; by virtue of its isolation and the lack of capacity to supply them, Tajikistan fared the worst; Uzbekistan, in contrast, was a major fertilizer-producing republic and thus better equipped to make the transition.

Output from the kitchen gardens led to the first private markets under the Soviet system, as households began producing more than their own needs and selling the surplus in local markets

and along the roads. By the end of the Soviet era, up to a third of the food sold in those markets came from kitchen gardens. When the country declared independence from the USSR in 1991 and soon thereafter descended into civil war, they became the primary source of survival for the Tajik population. They continue to be the most productively utilized land in the country.

With Tajikistan's agricultural sector under the Soviet system not geared towards food, independence led to a severe supply crisis. In 1992 the government passed its first land reform package (the law 'On Land Reform'), aimed at alleviating that crisis. It designated a special category of 'presidential land' from the excess not already under *sovkhoz/kolkhoz* management; households could draw on it to expand their kitchen gardens. In 1996, as the country began to emerge from the civil war and with the farming sector in deep financial crisis, it decreed a more comprehensive reform that aimed to reorganize the *kolkhozes/sovkhozes* into *dehkan* farms (*dehkan* is the Tajik word for 'farmer'). Although the land in *dehkan* farms remains the property of the state and cannot be bought or sold, the farmer is granted inheritable rights to its use and the freedom to manage it as he sees fit; the state reserves the right to take back this land at any time if it is not being used 'effectively'. An April 2001 law 'On Land Use Planning' laid the foundations for registration and titling of land but again retained strong state powers to intervene, under the guise of land use planning. Land was scheduled to be completely transferred into this *dehkan* system by 2005, with the exception of farms set aside for seed production, livestock breeding and research. In fact the process was slower, but by 2006 the agricultural land in 'corporate farms' (the successors of former collective and state farms) had shrunk from the Soviet level of 99 percent of the total to 35 percent. Most of this land had shifted to the *dehkan* category, which now accounted for close to 60 percent, with the remaining 5–6 percent in household plots, up from their traditional 1 percent in the Soviet era.

In fact, however, the reforms have not produced anything approaching a normal family farm system. On the one hand, the government simply converted *kolkhozes/sovkhozes* into corporate farms (now called 'collective *dehkan*'), the apparent changes thus being essentially cosmetic in nature. The transfer of land to the tenants, the critical aspect of the reform, was to be achieved through a process of share allocation formalized through membership certificates, but this process has been very slow and partial. Only 5.6 percent of farm workers interviewed by Action Against Hunger (AAH) in 2003 reported having received these certificates (Porteous, 2003: 15–19); most were completely unaware of the changes, with 64.3 percent believing they were still working for a *kolkhoz/sovkhoz*. The other category of farm emerging from the reforms is the 'independent *dehkan* farm', typically less than 50 ha, run by an individual, a family or a group of families and formed through the initiative of individual farmers in one of two ways: a shareholder or a group of shareholders of a large farm can apply to the farm management and district *hukumat* (governing body) to withdraw their shares and use them to start their own farm; alternatively, anyone can apply directly for land from the special fund of unused land of the district. The value of the latter option is greatly reduced because the land is typically of low quality and rain-fed rather than irrigated. While this independent *dehkan* farm is the stated aim of the land reform, the procedure of 'privatization by application' has greatly impeded the process. Those who are familiar with the laws, have personal connections with local authorities and can

**Table 4.2: Estimates of the Share of Individual and Corporate Sector in Land, Based on Data from Goskomstat and the State Agency for Surveying, Cartography and Land Use, 2006**

	Agricultural land	Arable land
Total land	4 million ha	800,000 ha
Share in 'enterprises' (corporate farms)	35%	20%
Share in household plots	6%	20%
Share in <i>dehkan</i> farms	59%	60%
Estimated share in family <i>dehkan</i> farms (2/3 of land in <i>dehkan</i> farms)	39%	40%
Estimate for individual sector (household plots and family <i>dehkan</i> farms)	45%	60%
Estimate for corporate sector (enterprises and collective <i>dehkan</i> farms)	55%	40%

afford the official (and unofficial) costs of the application process are privileged to obtain such farms; hence, the process is an invitation to corruption.<sup>40</sup>

Agricultural output has increased quickly during the recovery since 1997 to recover and approach the 1988 peak of the late Soviet era, while agricultural land under cultivation has remained roughly constant (or has perhaps even declined slightly). Land productivity has thus increased substantially; agricultural labour has continued to increase, its recent productivity gain has been more moderate, and its level has remained below that of the late Soviet years.

Despite its limitations land reform has played an important role in agricultural recovery. Table 4.2 presents an estimate of the 2006 breakdown of land among the different categories. Family *dehkan* farms together with household plots probably had 40–50 percent of agricultural land and a larger share (perhaps 55–65 percent) of arable land.<sup>41</sup> Growth of crop production was driven by productivity increases from the household plots (Lerner and Sedik, 2008: 2) and a redistribution of land in *dehkan* farms. By 2006, with crop production 30 percent above its 1991 level, household plots accounted for 50 percent of total output, compared with 36 percent in *dehkan* farms and 14 percent in corporate farms. Since household plots held only 20 percent of the sown area, while corporate and *dehkan* farms controlled 80 percent, average land productivity on the former was four times greater than on the latter. The performance of household plots stands apart from the others also in that over 50 percent of growth in crop production on these farms can be attributed to rising productivity.

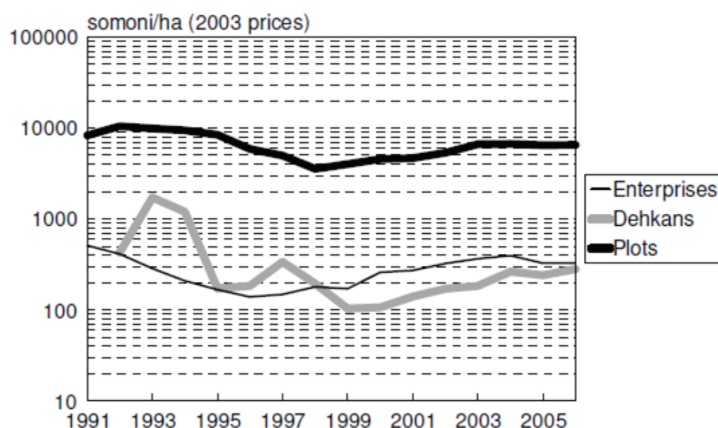
If *dehkan* farms and agricultural enterprises had achieved the same level of land productivity as household farms in 2006, total agricultural production would have been 114 percent higher; if they had achieved even half that productivity level, total production would still have been 37 percent higher (ibid.: 4). It is noteworthy that *dehkan* farms were on average not doing better than the large farm enterprises. Part of the problem, no doubt, was that at least one third



of the *dehkan* farms were not individual farms at all; it is plausible that these collective *dehkan* farms would perform at about the level of their corporate counterparts.

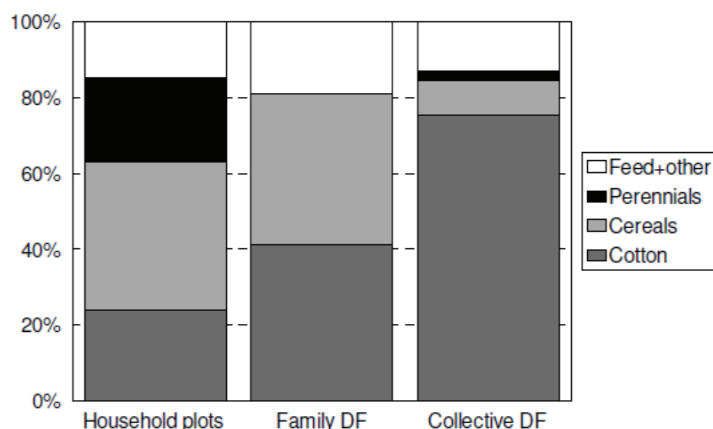
Access to machinery and fertilizer was greatly curtailed after 1991, until at least 2005 for machinery, while fertilizer use seems to have stabilized somewhat earlier. This difficult setting further highlights the impressive achievement of household plots, generally at a greater

**Figure 4.4: Productivity of Land by Farm Type, 1991–2006 (GAO per hectare of agricultural land, by type of farm, TJS per ha in constant 2003 prices, log scale)**



Source: Lerman and Sedik, 2008.

**Figure 4.5: Cropping Pattern in Household Plots and Dehkan Farms (DF), 2007–2008**



Source: FAO 2007–2008 survey for household plots and dehkan farms; 2007 USAID survey for collective dehkan farms.

disadvantage in getting access to machinery and inputs than the state-run corporate farms and the larger collective *dehkan* farms, although such plots typically do not require machinery and rely more on natural rather than mineral fertilizer.

There is a striking contrast in the cropping decisions across these farm types, with the share of land dedicated to cotton drastically lower on individual/family *dehkan* farms (and on household plots) than on collective *dehkan* farms. In fact, farms were reorganized into collective *dehkan* farms predominantly to ensure the continuation of state-mandated cotton production on this land. *Hukumat* (local government) intervention is found to be quite prevalent for cotton growers and virtually non-existent on other farms.<sup>42</sup> Although one of the main stated aims of the reform was to give the farmers freedom to decide what to grow,<sup>43</sup> local officials told AAH that a government production plan was still in place for cotton. At the beginning of the year, each provincial *hukumat* gave each district *hukumat* a production target; despite the formal changes, in practice much continued to follow the Soviet style (Porteous, 2003: 9).

What explained the discrepancy between government goals and small farmers' behaviour with respect to cotton, a crop with such a large traditional comparative advantage that they might be expected to continue to grow it even without government mandates? Porteous (2003: 11) quotes one farmer as follows: *"If I can take the profit from the cotton, I will grow it on all of my dehkan farm, all of my household plot, and all of my presidential land. But right now, I am not taking much profit, so I want to be free to grow my land in wheat and vegetables instead."*<sup>44</sup>

The history of cotton and its institutional structure since the Soviet era provides the background to this impasse. When, in the early 1990s, it became clear that the government could not on its own return the cotton sector to its Soviet level of operation, a consortium of international cotton buyers, including Paul Reinhart and Credit Suisse-First Boston, stepped in. Millions of dollars' worth of loans were made against later cotton purchases. The funds were distributed to local 'investors' through the Tajik AgroInvest Bank, in which Reinhart then held a majority share. The investors used a system of futures contracts to channel the funds to farmers in the form of inputs (fertilizer, pesticide, fuel and seeds) and then purchase the cotton for resale to Reinhart. The contracts were based on an expected production quantity, which if exceeded translated into profits for the farmers or into debt if targets were not met; by 2009 this debt had risen to US\$548 million, an amount almost equivalent to the total combined amount provided by the World Bank and the Asian Development Bank (ADB) in loans or grants to Tajikistan since they began operations in the country.

Several factors explain why these debts rose to the point of crippling the cotton sector. First, Tajikistan has never been able to bring its cotton yields back to the level of the Soviet era; the predicted yield for 2012 is still under half that of the peak in the late 1980s.<sup>45</sup> Since 1990, although the cropped area has remained relatively constant, output has suffered a major decline due to the huge drop in productivity. Another part of the story is institutional. The 'investors' who set up the futures companies developed enormous influence over the industry, including the market for inputs (by virtue of their loans to the cotton farmers) and the purchase and export of the cotton. With time this group further consolidated its grip by purchasing ginning mills as

the government privatized them. In short, the cotton industry became a complete monopoly/monopsony, using debt to reduce farmers' market freedom and diverting the bulk of the rents from the farmers to the 'investors', the government and international cotton buyers. This pattern is reflected in the exorbitant prices of inputs to farmers (debtor farmers have no choice but to buy inputs from the investor they are indebted to) and farm gate cotton prices that are much lower than in other cotton-producing countries.<sup>46</sup> Another symptom of the exploitation is the smuggling economy that has developed around cotton; there have been several instances of cotton being smuggled out of Tajikistan in its raw form to be sold at higher prices in neighbouring Kyrgyzstan or Kazakhstan.

While the monopolistic nature of the cotton market and its adverse effects on the growth of the economy is widely acknowledged, its reform is politically difficult. The Government of Tajikistan, under the auspices of the World Bank, the ADB and the European Bank for Reconstruction and Development (EBRD), has begun to address the problem, but counter-pressures are strong. Keeping farm profits low contributes to government revenues, to investors' incomes and to the personal incomes of some government officials, lending some plausibility to the view that the state's regulatory apparatus is allied with the 'investors' in deliberately making it difficult for the farmers to extricate themselves from debt.<sup>47</sup> As Rowe (2011: 201) puts it "the changes undertaken are the work of a government that does not want to change the economic, social or cultural status quo of the rural countryside."

The debt accumulated on these lands is one of the most cited reasons for why a larger number of farmers have not applied for their own private land. In May 2009, after several consultations and discussions with the donor community and the Government of Tajikistan, the President issued decree No. 633, which wrote off certain cotton debts to farmers and promised that by June 2010 land use rights would be strengthened by allowing farmers to engage in market transactions without state interference and by requiring court proceedings for the withdrawal of land use rights for state or public need when parties cannot agree. These reforms are very welcome; it now remains to be seen how thoroughly they will be implemented, particularly as uncertainty of maintaining tillage rights has been a major reason for the lack of investment and hence the stagnation of productivity. Most critical, however, is that the depressed cotton price to the producer due to the monopsonistic market must be tackled if productivity in the *dehkan* farm sector is to approach levels found in the household plots.

Cotton remains important to the national economy. It accounts for 15 percent of Tajikistan's export revenues and 39 percent of total state tax revenue, providing the government with an incentive to ensure that it continues to be grown as a major crop. But the structure of the cotton sector has been one of the biggest barriers to local investment in Tajikistan and has thereby contributed to migration in search of better opportunities in Russia. A majority of migrant labourers come from poor rural cotton-growing areas. Khatlon, the nation's largest cotton-growing province (with 60 percent of the total), has by far the highest level of extreme poverty, defined as per capita income of under US\$1.05 per day. The reform of the cotton market in Tajikistan is critical to maximizing the developmental payoff to land reform. More generally, the importance of reforming the agricultural sector is fundamental to achieving food security and equitable

growth in the country. Freedom to decide which crops to sow, access to secure and transferable land use rights, and investments in rural infrastructure are all central to this goal. Currently, too many young Tajiks are deciding that it is pointless to apply for land ownership and that the best option is to leave farming and migrate to Russia to look for work there.

Cotton, as a relatively labour-absorbing crop, has the potential to contribute importantly to pro-poor growth, provided the appropriate institutional (land reform, end of monopoly control) and technical (infrastructural investment, crop improvement) steps are taken. Whereas currently the workers toil with little benefit, accompanied by children who should be in school (International Crisis Group, 2005: 17), if cotton were produced on small family farms with solid technical back-up from the state and competitive (or otherwise not exploitative) input and product markets, incomes would be greatly increased, the crop's contribution to employment would remain, but the exploitation of cotton workers and their need to have their children in the fields with them would end. Both the management of cotton and the societal benefits from it will be improved by continuing the shift towards small family farms as the basic unit of Tajik agriculture. Currently the government bias towards cotton production but against paying farmers a competitive price for it leads to much inefficiency. Rowe (2011: 193–194) notes in connection with the Hisor Valley, a more or less representative area in terms of agricultural land and setting, that workers on the better land in the central part of the valley where the primary crop is cotton have good access to water, but most farmers have had difficulty accessing it for household plots and other private land. They say that the bureaucracy is “too new, too confusing and too exhausting to effectively get anything done on land that does not grow cotton or other commercial crops”.

While land reform has registered significant achievements in Tajikistan, it has not been able to achieve nearly as much of its potential as would be desirable and is essential for the welfare of the country. As Lerner and Sedik (2008: 4) put it, “...failure to follow through on land reform has prevented the government from attending to the longer run needs of agriculture, rural development and natural resource management... The failure to take the first and most basic step preserves an underperforming agriculture, keeping the rural population on the brink of food insecurity, agriculture particularly susceptible to natural disaster and government without adequate tax revenues from the sector.” In short, the failure of land reform has contributed to the vicious circle plaguing the country's efforts to pull its population out of poverty. As in any country, the design of the agricultural system should reflect cultural patterns and history. Rowe (2011: 201) concludes that culturally most Tajik farm labourers are not ready for full privatization, given that production was a communal affair even before the Soviet period. As he proposes, Tajikistan might consider the dual system of Hungary (Meurs, 2001), under which private and communal property owners compete again each other, spurring the latter to improve to the level demonstrated by the former. The communal option would give greater security to the workers but on average less income.

## ***Small private enterprises outside agriculture***

About half of domestic employment in Tajikistan has in recent years been generated in small and medium-sized private firms, including those in agriculture. For much of the foreseeable future such firms and, increasingly over time, those outside agriculture (internationally referred to as micro, small and medium-sized enterprises—MSMEs) will have to carry the bulk of the burden for the domestic creation of decent jobs; agriculture's role, though pivotal for the short to medium term, will gradually decline. In any case, small firms both in agriculture and elsewhere and both microenterprises (usually defined as family firms with up to about five workers) and SMEs (firms with five to 100 workers or so) will be needed to generate enough jobs, since even if the larger capital-intensive projects that are planned do come to fruition, they cannot realistically be expected to generate much employment. The MSME sector has been growing at least reasonably rapidly over the last 10 years or so,<sup>48</sup> as have the incomes generated in it; productivity trends are not known. Such activities currently compete with work abroad (Abdulloev et al., 2011) but could eventually provide a more secure source of employment for many more people.

Judging by the large number of self-employed people in the labour force, it appears that microenterprise provides the bulk of MSME employment, with SMEs still playing only a modest role.<sup>49</sup> In qualitative terms Tajikistan's SMEs have much in common with such firms in market-oriented developing countries. As expected, the main source of start-up capital is private or family funds (Olimov, 2007: 8), with loans from banks and other financial institutions playing a minor role<sup>50</sup> because of the high cost of getting such loans and the high interest rates payable on them (24–30 percent per year). Small firms conduct many transactions in cash rather than through banks; about 80 percent of the enterprises did not use bank accounts in their business operations. Firms also prefer informal methods of dealing with state officials and other businesses because of the overcomplicated and burdensome formal procedures and the low quality of civil servants (ibid.: 9–10). Informal channels to solve disputes and other issues are more uniform and hence predictable than formal ones and require only a third as much time. Cash outlays are considered comparable between the two channels; informal payments (bribes) to solve disputes with state officials amount to 7.2 percent of sales or about a third of annual profits. Smaller firms have to make larger payments in relation to sales than do larger ones.

The informal sector (or microenterprise) is a sort of school for individual entrepreneurship, providing opportunities in circumstances where operating a small or medium-sized business is prevented by administrative and other barriers. Employment in the informal sector can allow relatively 'cheap' labour to attain new skills while facilitating social, employment and occupational mobility. There appears to be considerable interest in starting new businesses. Thus according to the labour force survey of 2004, 70 percent of the total number of unemployed young people were actively looking for work, while the other 30 percent were trying to start their own business.

A high level of sustained healthy growth of SMEs in a low-income transition economy such as Tajikistan's will not be easy to achieve because of a combination of obstacles:

- i) the limited entrepreneurial experience and skills, in part a legacy of the centrally planned economy;
- ii) the absence of a strong support system for new and evolving small firms, both in agriculture and elsewhere, and the presence of a not very competent and sometimes predatory state;<sup>51</sup>
- iii) electricity shortages and a poor transportation network. Lack of electricity limits business activity, especially in winter, and the weak transportation system impedes the movement of goods between regions and abroad;
- iv) the monopoly control exercised by an in-group on some activities into which, ideally, small firms would enter in numbers; and
- v) the lack of some of the skills (other than entrepreneurship *per se*) needed on the part of employees and workers in such firms.<sup>52</sup>

## ***POLICIES TO FOSTER GROWTH, EMPLOYMENT CREATION AND SOCIAL GOALS: THE NEED TO LOOK BEYOND REMITTANCES***

Growth in remittance income cannot be expected to continue indefinitely, and its contribution to a rising national income will, therefore, likewise decline. Planning for that phase of the country's development requires attention to which sectors have the potential to contribute the most to pro-poor growth, what knowledge and skills will be most important to success in those sectors and activities, and what social policies will be best able to complement the growth process thereby set in motion.

### ***Key sectors***

The rapid relative shrinkage of both the manufacturing and the agricultural sectors does not bode well for the economy, given that Tajikistan is still at an early stage of its development.<sup>53</sup> The manufacturing sector is particularly worrisome, given that its official share of value added (at current prices) slipped under 10 percent in the last couple of years and that one large aluminium smelter—a Soviet-era legacy established to take advantage of the low cost of hydroelectric energy—accounts for more than 40 percent of sectoral output. The agricultural sector accounted for 25 percent of the country's GDP in 2008 but only 20 percent in 2011; even as the relative weight of this sector continues to decline for a myriad of reasons, it remains the largest employer, accounting for over half of total jobs. Much of the huge decline in labour productivity after independence occurred in the agricultural sector. Institutional failures, inefficient infrastructure and problems specific to the cotton sector all contributed to its decline.

To achieve pro-poor growth and adequate employment creation, Tajikistan must be successful in a number of labour-intensive sectors, including cotton, other agricultural products,

labour-intensive services and, possibly, some branches of manufacturing. The most obvious opportunities are in agriculture, where both cotton and other products could generate more and more productive jobs if the land reform process were restructured and accelerated. Since the interrelationships among the agricultural/rural sector, food security and emigration are key elements of the background scenario for the analysis of economic policy, social policy and labour markets in Tajikistan, any meaningful social protection policy must be designed with them in mind.<sup>54</sup> Specific attention must be given to reforming the cotton sector, which has been shackled by poor governance, lack of access to credit, and a counterproductive system of land use rights. Overall agricultural productivity is also hindered by poor infrastructure maintenance, lack of market access, and deterioration of soil quality. Non-agricultural rural activity is severely constrained by inadequate access to energy and electricity. Policy recommendations need to be structured around the principle of achieving an adequate level of local food security by allowing crop diversification to modify the damaging aspects of cotton monoculture.

Despite the severe challenges, pro-poor growth appears technically possible and would be fostered by the combination of:

- i) continuing strength of the labour-intensive (albeit seasonal) cotton sector, which will require policy to reverse the history of environmental degradation and to better organize the cotton chain such that farmers themselves receive more of the benefits. Cotton offers much promise, given Tajikistan's excellent growing conditions and high-quality product. The cotton monoculture has been environmentally very destructive, and the benefits have been concentrated due to the structure of the cotton chain. Land reform to break up the large, inefficient farms that are a legacy of the Soviet economic structure is part of the answer. How much more labour-absorbing cotton production would be if carried out in small units is hard to judge at this point;
- ii) continuing reform of agriculture to get land into the smaller units that, according to experience both in Tajikistan and elsewhere, have the potential to be more efficient in their allocation and use of resources, more labour-intensive and also to focus more on food production for family consumption, with the effect of alleviating food insecurity, and also to foster more firms that create jobs;
- iii) developing a strong support system for non-agricultural MSMEs. Probably the most important policy step related to this sector is to avoid penalizing small firms, including microenterprise, either through unnecessary regulations and requirements or through more punitive measures. Despite some growth in the SME sector and the expectation that it will gradually become more formalized, the informal sector is likely to remain pivotal for employment generation for several decades; prohibitive measures against it would thus be counterproductive, possibly seriously so. Unfortunately some measures of this sort have been taken, such as closing small markets in cities where small producers come to sell their agricultural products. Attempts to discourage informal activity through high taxes and other impositions are likely to raise unemployment and push more people to emigrate. Income of workers in



the informal sector will be pushed down, and some people will inevitably resort to criminal activities. Restraining measures appear justified only in the most negative manifestations of informal employment, such as where it involves severe environmental damage, severe abuse of workers or criminal activities.

For SMEs also, it is important that policy not affect them negatively. One necessary step is to provide a simplified regulatory system, including easier procedures for registration of small businesses, tax cuts, and possibly exemption from taxes for a period after start-up. Measures to promote small businesses can contribute both to legalizing part of the informal sector and improving its accountability in terms of minimum social guarantees. On this proactive side, one useful step is to support the involvement of SMEs in the process of government procurement, which can be facilitated by reducing the batch size of public contracts to ensure that they are not squeezed out. Access of small firms might also be improved by requiring that all payments of state fees be channelled through the banking system to reduce vulnerability to bribes.

Several minor initiatives have been undertaken to aid small business. In 2009, the State Agency of Social Protection, Employment and Migration assisted 1457 women and girls to start businesses by allocating to them soft loans totalling TJS2.944 million. In 2009, a number of unemployed women were involved in community work, and, through this, 14,811 found continuous employment, while 5541 were channelled into training courses for such female professions as seamstress, fabric cutter, gold embroiderer, weaver, clerk, cook, farmer etc.

### ***Education and human capital***

A relatively good educational system was one of the positive legacies of the Soviet experience, but it has since suffered significant setbacks due to limited investments and the disruptive effects on attendance of the recent wave of migration. A recent UNICEF (2011) study shows that there are significant negative social impacts on children from migrant households, in particular on their psycho-social well-being and on educational outcomes. Especially in the case of abandoned households, the social costs of migration were found to be high, due to family disintegration and lack of parental care. The capacity of the public sector is limited by its very modest revenues and its limited administrative capacity. Low investment and spending on education translates into poor physical conditions of schools and low teacher salaries, which in turn contribute to instruction that is frequently of poor quality, lacking in appropriate teaching aids and updated tools for the transmission of knowledge, and of questionable relevance; it is also likely to negatively affect the perceived status of public education and to lead to a feeling among many teachers that they are being neglected by the government and are not respected by society (UNICEF, 2004: 8).

Meanwhile, the dramatically lower incomes since the Soviet period have naturally constrained private expenditures on education.<sup>55</sup> ADB studies show that the share of household expenditures going to education and health care is small, averaging no more than 3.8 percent. Before investing in education, households need to have a degree of confidence that it will improve employment opportunities. The lack of local opportunities even for the highly educated

is believed to deter expenditures on schooling. Emigrants typically get jobs that do not require and/or reward much education. The effect of remittances on education is complicated. On the one hand, studies point to a strong positive relationship across households between expenditures on education and the level of remittances received, as well as between the level of educational attainment of the migrant and the remittances sent (Kroeger, 2010). On the other hand, there is a strong connection between receipt of remittances and absenteeism from school. Therefore, while remittance income can stimulate investment in human capital and relieve the financial constraints on the length of time spent in education, the associated loss of household labour may be increasing the pressure on remaining younger members to compensate by working when they could be in school. This is another of the dilemmas associated with emigration and remittances.

The currently discouraging context for investment in education is worrisome, since it is plausible to assume that a better stock of human capital would contribute to future growth and that such growth would create the demand for better-educated workers. At present, however, a vicious circle may be at work, whereby the state of the economy discourages education, which in turn limits the paths the economy could take in future. SIDA (2007: 9–10) concludes, “Concerted action may ... be essential today to achieve the desired results half a generation from now...”

### ***Social policy during the transition and beyond***

Since independence, Tajikistan has experienced a strong deterioration of social-sector services (health, education and social protection, water, sanitation and other municipal services, and environmental protection) as well as in gender equality.<sup>56</sup> The crisis has reduced by half the population’s access to quality social services and thereby contributed to a general decline in living standards.

The state’s limited institutional and fiscal capacity has made it impossible to execute sound and comprehensive reforms for the social sectors, to strengthen their human capacity and to expand the logistical base for the social services. Existing staff in Tajikistan’s social-service institutions have little relevant experience. Training to remedy that deficit is an urgent need.<sup>57</sup>

With a shrinking public sector in relation to the size of the economy and a growing private one with low levels of social security coverage, Tajikistan faces the need both to reform the public-sector social security system and to design appropriate regulations for the private sector. The country is in the unusual situation where incomes are generally higher in the private sector, but, with pensions better in the public sector, some people have preferred public employment, especially when close to retirement. The weak business environment and the cumbersome administrative barriers impede the development of the private sector, which could help to provide some social services directly and strengthen the government’s fiscal capacity to provide guaranteed social services.

Recent assessments have identified various groups of Tajikistanis particularly at risk. According to the National Social Investment Fund of Tajikistan (NSIFT) survey, the very poor people in Tajikistan include:

- **families headed by women.** Unlike men, who are more mobile and can more easily go to where work is available (including abroad), many female heads of families have to care for their children and can only access scarce job opportunities within their village;
- **families with young children,** headed by disabled people. The situation in these families is even more difficult, because young children (under seven years old) cannot generate income. A disability pension, which heads of such families receive, is only enough to feed the family for two or three days, even if it is paid regularly, which is not always the case;
- **families with five or more children,** especially if this family has young girls who do not work and cannot contribute to the family income. This situation arises especially in rural areas; and
- **lonely elderly people.** Generally, children of these people do not have the resources to provide adequate help to their parents.

The most vulnerable groups include:

- **families with a sick head of household.** Illness of the breadwinner of a low-income family can lead to sudden poverty not only due to the loss of income but also the cost of treatment;
- **unemployed people who have lost a job and cannot find another.** This group includes former employees of industrial enterprises, as well as young people approaching mid-career;
- **working poor people:** families where a family member is working but whose income is too low to overcome poverty. Much of what he/she earns (80 percent) is spent on food. The rest is spent on clothing and other basic needs; and
- **farmers with small plots of cultivated land and small livestock or having no assets at all** are mostly in poverty. Income derived by farmers from their small plots can often support their families for at most four or five months. The droughts afflicting the country since 2008 have particularly worsened the situation of these farmers.

Unfortunately, the challenge of reaching these groups in a satisfactory way is not matched by the programmes currently in place. As of 2009, the consolidated budget for social assistance (excluding social pensions) was tiny, at 0.2 percent of official GDP (World Bank, 2010: 1) and hence a considerably smaller share of correctly measured GDP or gross national product (GNP). Further, because this assistance is not well targeted, it exerts almost no downward influence on poverty rates or on income inequality; only 23 percent of the spending is likely to have reached the bottom quintile (although most leakage is to near-poor people), and a relatively small share of poor people receive any assistance at all—20 percent in the case of the poorest quintile (*ibid.*: 10). The main social assistance programmes at this time were a subsidy for electricity and gas consumers and a conditional cash transfer (CCT) programme for families with children in school. The former suffered from the fact that many of the poorest families had no access to electricity or gas in the first place. The latter programme was set up in the early 2000s with World

Bank assistance, with the aim of reaching the poorest 15 percent of families; having children in grades 1–9 was the criterion for eligibility. Unfortunately, its size is negligible—too small to have any likely effect on school attendance. Its administration is deficient as well; funds are transferred from the Ministry of Finance to the districts as part of a block grant, and the districts are not accountable for spending, so they can and do divert funds to other uses.

The other main form of social assistance, managed by the state Agency for Social Insurance and Pensions, takes the form of pensions for elderly poor people who have not contributed to a pension fund (ibid.: 8). It amounts to 0.3 percent of official GDP; adding it to the other programmes brings the total spending up to 0.45 percent of official GDP, well below any other European or Central Asian country (ibid.: 6) and no doubt one of the lowest figures in the world. The World Bank (ibid.: 2) estimates that to eliminate extreme poverty would cost about 1.4 percent of official GDP, about four times what was being disbursed in 2009, even if the spending were targeted perfectly. In broad terms, therefore, what is needed is a major increase in spending and a good targeting system to replace the rather accidental processes currently in place.

### ***Recent developments in the social policy area***

In 2007, a new programme was agreed on between the Government of Tajikistan and the European Union (EU), under which the EU provided policy support of €17.5 million (US\$24.3 million) for 2007–2010. This constituted the final stage of the budget support programme to food security and the beginning of the programme of sectoral budget support, whose main objective was to assist the Government of Tajikistan to improve the design, implementation management and effectiveness of national social protection policies in line with its existing programmes, the National Development Strategy and Poverty Reduction Strategy Paper. The programme also aims to strengthen public financial management in the field of social protection.

Currently (2010–2012) the EU has been implementing the Technical Assistance to Sector Policy Support Programme in the Social Protection Sector project, with a budget of €5 million and the objective of updating the social protection system. The main local partner is the Ministry of Labour and Social Protection. The programme has three components:

- labour market policy, which aims to support a comprehensive analysis of the current situation in the labour market and labour migration for a labour market development strategy and implementing financial plans;
- social payments and benefits policy, which aims to improve the system of social benefits and privileges in Tajikistan; and
- social services development, which provides support for the development of standards, methodologies and practices in the provision of social care for people with disabilities and vulnerable groups, improving coordination and quality control of delivered services.

## **CONCLUSION**

Tajikistan has for a little over a decade been experiencing an economic recovery from the severe crash that resulted from the break-up of the Soviet Union and the civil war that followed it. GDP per capita remains well below that of the later Soviet years; GNI per capita has performed considerably better due to emigration to and remittances from Russia. Poverty has fallen but remains the highest of the former SSRs of Central Asia.

The most important policy for the country to achieve healthy pro-poor growth and continuing poverty reduction is to advance its family-farm strategy through further allocation of land into small units, reform of the marketing systems for agricultural inputs and outputs and development of a small-farm support system that can provide the infrastructure and the new varieties and breeds needed to raise productivity in this part of the economy. The other sector-specific policy needed is support for non-agricultural MSMEs. In part this entails simply making the bureaucracy less of an impediment than it has sometimes been; the other part is to develop a positively supportive set of programmes and policies.

Development of the country's hydroelectric potential is a high priority both as an input to industry and as key to the provision of electricity and water to the population. But since they create few jobs, such capital-intensive activities must be balanced by labour-intensive ones (such as family agriculture and MSMEs); otherwise, any growth that results will neither create employment nor be pro-poor.

The health and educational systems and the infrastructure behind them are also significant challenges, given the deterioration that has occurred. Finally, a social protection system consistent with the current state and trends of the economy will need attention for the foreseeable future. It will be important that the pursuit of such a system does not come at the expense of successful evolution, including eventual formalization, of smaller private firms through onerous regulations. Among the high-priority elements are contributions to food security (above and beyond the development of a strong family-farm system), improvements in primary health care, and programmes to assist the poorest and most vulnerable members of society.

The multiple crises that have recently afflicted Tajikistan help both to understand the challenges confronted and also to provide an opportunity to develop policy that is more than a simple reaction to them. Improving food security requires going beyond short-term responses, to protect and promote people's livelihoods in the longer term. Issues such as negotiating access to markets or dealing with land rights and occupation are long-term issues, in contrast to much of the humanitarian work necessitated by short-term crises.

## ***ANNEX 4.1: THE INFORMAL ECONOMY AND MISMEASUREMENT OF AGGREGATE ECONOMIC VARIABLES***

Although the enormous and changing underground economy (including legal but informal activities as well as illegal ones) makes it impossible to ascertain with precision what has been happening to true GDP or GNI, several serious attempts have been made. Olimov (2007: 8) estimates that for 2005 the shadow economy was 61 percent as large as officially reported GDP. The three components he distinguished were home production of food products (14.7 percent), wages paid in kind and barter exchanges (13.2 percent) and understatement of salaries (35 percent), with the related underpayment of taxes amounting to 33 percent. These economic activities uncaptured or understated in the national accounts do not include, or do not fully include, informal enterprises or illegal activities. It is thus possible that the total size of the underground or unreported economy is equal to or larger than the official one.

A different type of evidence on the degree of underestimation of economic aggregates is presented by Abdulloev et al. (2011) on the basis of the World Bank's 2007 Living Standards Measurement Survey; they point to huge underreporting of household incomes—which are only 41 percent of reported expenditure (which in turn is likely to be somewhat underestimated). This enormous gap is broadly consistent with the conclusion of Olimov, allowing additionally for the components of underreporting that he did not try to estimate. Abdulloev et al. interpret the difference between household income and household expenditure as informal income. In the absence of huge under-measurement of other forms of income, the numbers do point strongly to the importance of informal income; even if other forms of income were understated by, say, 50 percent, there would still be 36 percent of expenditure to be accounted for and presumably explicable by informal income. As noted in the text, national income and GDP may also be significantly underestimated due to failure to capture drug-related income; the same could be true for household income, where drug-based revenues are unlikely to be reported.

It is important, however, to note that there are also upward biases in the official GDP figures, in particular those related to its failure to allow for environmental degradation. Adjusted net savings, which take account of the depreciation of produced capital, investments in human capital and depletion of natural capital offer a truer depiction of the level of saving in an economy. A World Bank estimate put this figure at 2.8 percent of GDP saving in an economy (2011), although this calculation omits two of Tajikistan's most eroded resources: water and soil.

## ***NOTES***

- 1 The Food and Agriculture Organization of the United Nations (FAO) estimated that, because of the food price inflation in 2007 and 2008, an additional 115 million people were pushed into chronic hunger (2009: 6).

- 2 Figures appear to vary, perhaps because of differing assumptions made about the number of Tajikistanis abroad.
- 3 For more details, see Annex 4.1.
- 4 Thus if, for example, remittances were zero in 2000 and 30–50 percent of GDP in 2010, then GNI growth over 2002–2010 was about 3–5 percent per year above the correctly measured growth of GDP, which in turn may have exceeded the officially reported rate for the reasons just mentioned.
- 5 Informal-sector activities often have high output–capital ratios, so failure to include this sector in the official figures might imply a smaller understatement of investment than of output, and hence suggest that the official investment ratio from the official figures overstates the true one. But the pattern might be different for illegal activities.
- 6 Olimov and Bosc (2003: 36) distinguish hired workers (working under some form of formal or informal contract), construction workers, shuttle workers who buy goods in one region and sell them in another, and agricultural workers.
- 7 ILO (2010: 1) notes that, according to the Ministry of Labour and Social Protection of Population and the Migration Service of the Ministry of Interior Affairs, the total number of migrants in 2008 was 720,000, of whom 93 percent worked in the Russian Federation and 5 percent in Kazakhstan. Mughal (2007: 111), extrapolating from a household survey in the region of Khatlon, put the figure at just 371,000 for 2005.
- 8 For a comparison among sources, see Jones et al. (2007: 21). As might be expected, the highest figure comes from a survey of migrant households, which would presumably capture all forms of remittances.
- 9 Three figures are worth bearing in mind. First, if remittances are 45.4 percent of GDP, and disregarding other differences between GDP and GNI, the latter would be 45.4 percent above the former. In fact, however, national income also includes earnings of emigrants that they do not remit but rather spend in the country of work. This adds another substantial amount to national income—say, another 50 percent of the value of the remittances—raising GNI to about 170 percent of GDP. Finally, however, the impact of emigration on GNI is less than this by the amount of income the emigrants would have earned had they stayed in the country. If income abroad is three times that which would have been earned at home, then GNI would in fact be about 147 percent higher than if no migration had occurred. Finally, however, it must be noted that both the official GDP figures and any GNI figure based on them are likely to be a serious underestimate through failure to include informal and illegal (e.g. drug-related) income, which between them probably amount to 60–100 percent of official GDP. In that case remittances, at 45 percent of official GDP would be 22.5–28 percent of true GDP and 17–20 percent of GNI.
- 10 If these families had been unable to substitute other forms of income for the remittances, extreme poverty would have leapt to 77.8 percent. Since any such substitution would have been at most partial, there is no doubt that poverty would have been much higher than in fact it was. Economic theory suggests that the short- to medium-term impacts on poverty result from three phenomena: i) tightening of the local labour market, thus pulling wages/earnings up; ii) upward impact of the remittances on the incomes of those left behind and the emigrants themselves; and possibly iii) a selectivity according to initial level of poverty. The third factor could work either way. If enough skilled workers or entrepreneurs migrate, this could have the effect of lowering the demand for labour in the unskilled categories where poorer people would be found. In Tajikistan, it is not clear whether the emigrants come from ex ante lower-income families or not; ex post they have a higher average income. In the



longer term, the impact on poverty also reflects the impact of the emigration/remittance process on growth, to which we turn below.

- 11 Note that the available figures on income inequality might be expected to understate that variable, perhaps by a large amount given the prominence of monopoly power and of the drug trade, both important sources of income concentration. Some surveys do not appear to have included remittances as part of income (Korobkov and Paley, 2005: 139), leading to very high reported Gini coefficients. Thus Falkingham and Klytchnikova (2006: 13), while reporting a per capita expenditure Gini coefficient of 0.36 for the country as a whole, show a coefficient of 0.63 for per capita income. As per the normal relationship between these two indicators, one would expect the Gini coefficient of per capita income to be in the range 0.4–0.45.
- 12 Available sources vary in their apparent coverage of income sources. Falkingham and Klytchnikova (2006: 13) report a Gini coefficient of per capita household expenditure of 0.36 in 2003, with the true figure presumably higher due to measurement error. The corresponding Gini coefficient of income would probably be somewhat above 0.4; allowing for the usual downward bias due to measurement error would push it somewhat above that level.
- 13 Jha et al. (2008) note that as of 2004–05 more than half of households observed to be non-poor were still vulnerable to poverty.
- 14 Such tactics help to maintain Russian influence in a country that has repeatedly challenged Russia by openly supporting Iran, ceding land along its eastern border to China and aiding the USA and its allies with the war in Afghanistan.
- 15 For reasons not clear to us, the figures used by these authors suggest a much lower ratio of remittances to total incomes than is commonly accepted in the literature.
- 16 Such concerns have been evaluated by analysts looking at migration and remittances in other countries. Adams (2011: abstract) concludes that “while international remittances generally have a positive impact on poverty and health in the developing world, remittances can have negative effects on labour supply, education and economic growth.”
- 17 [www.asiaplus.tj/news/198/66314.html](http://www.asiaplus.tj/news/198/66314.html).
- 18 The majority of this group, or 35 percent of the total, are long-term migrants (away for over two years with only brief trips back), while 16 percent have settled down in the other country, making no home visits over two years; some of these emigrants are unlikely to return or to maintain their current level of remittances (ILO, 2010: 16).
- 19 As an economy with a high level of temporary emigration, Tajikistan is somewhat like Puerto Rico at an earlier time; that country achieved very fast growth by inducing investment, much of it from the USA (Wolff and Baumol, 1996). Jamaica, on the other hand, did not reap such notable benefits.
- 20 Some of the funds arriving as remittances have indirect effects—for example, those that wind up in the hands of financial establishments and government. It is naturally harder to trace those effects. It is also possible that local spending for consumer goods stimulates local production and employment.
- 21 Comparison with the experiences of the countries analysed by Vaaler (2011) could prove helpful to explore this relationship further.

- 22 Although some forms of unregistered employment existed in Tajikistan during that period, they did not account for a large share of total employment.
- 23 Although labour market data are hard to interpret in Tajikistan, when pieced together they probably give a rough idea of recent trends. Official figures are less meaningful than before, given the absence of information on the informal sector or a large part of it; this means also that the official data on the sectoral composition of employment are unreliable. As Babajanov and Khakimov (2010: 26–27) note, “Even with the clarified concepts and improved approaches and techniques, many of the statistics will be flawed due to technical reasons. (...) Recently, household surveys are increasingly being used as a source of data, but this cannot fill the statistics gaps and address in full the mentioned shortcomings.”
- 24 As in other countries, the distinction between ‘formal’ and ‘informal’ involves not so much a dichotomy as a spectrum reflecting degrees of adherence to the various types of regulations on firms’ behaviour.
- 25 Thus the household survey used by Olimov (2007: 9) gives a figure of 46 percent for 2006.
- 26 Formal unemployment (registered at an employment office) was at 52,000 (or a little over 1 percent of the working-age population and 2.4 percent of the labour force) in 2007. These figures by themselves tell us little about the state of the labour market.
- 27 They report that during the rapid downsizing of the public sector in Bulgaria the informal sector expanded more rapidly than did the formal private one, in a context of complex and gender-differentiated links between these two. Government policy had the effect of making the cost of employment in the formal private sector higher than it might have been.
- 28 There are frequent cases of workers closer to retirement age trying to move from the private to the public sector to receive a higher government pension.
- 29 Table 4.1 provides another window into the sources of work-based income.
- 30 The ‘eastern mentality’ and certain accepted national traditions fit well with informal employment and thus constitute another advantage compared to working in the formal sector (Babajanov and Kakamov, 2010: 67).
- 31 These numbers are not comparable to those of Table 4.1, but they imply that each of the items in the table would be smaller by perhaps a quarter if the base were total income rather than cash income.
- 32 This suggests either that total household income is about equal to GDP or that the author is assuming it is.
- 33 Olimov (2007: 60), based on the Tajikistan Living Standards Survey of 2003 or 2007.
- 34 Thus women’s average earnings vary between less than half of men’s in the health sector to about three quarters in education, science, culture and art.
- 35 This paragraph is based on Babajanov and Khakimov (2010: 60–61).
- 36 IFPRI (Msangi and Rosegrant, 2008: 9) estimated that 30 percent of the rise in cereal prices in 2008 was attributable to the effect of demand for biofuels.
- 37 Data from 2000 indicate that about 90,000 ha of irrigated land (out of 720,000 ha irrigable) were in an ‘unsatisfactory’ condition—about half due to water-logging, a quarter to salinity, and the remaining quarter to both (Ministry of Irrigation and Water Management et al., 2006). A good review of the tight links between Tajikistan’s rural poverty and the condition of the land for farming is Swarup (2009).

- 38 A recent disaster in the town of Kulob, where a mudslide caused numerous casualties, could possibly have been avoided had the community's energy needs been met through regular electricity supply.
- 39 Tajikistan was the third largest cotton producer in the USSR during the 1980s (after Uzbekistan and Turkmenistan), producing 10 percent of raw cotton and more than 25 percent of fine-fibre cotton.
- 40 In their interviews with AAH, several jamoat chiefs (who owned their own independent farms) mentioned certain well-to-do individuals who owned several independent farms each, all registered under the names of different family members.
- 41 If family dehkan farms are assumed to have two thirds of the land in all dehkan farms, the figures are those shown in Table 4.2. These figures are not known with precision, since the database from which they come was partial (Lermer and Sedik, 2008: 2).
- 42 Among dehkan farms growing cotton, only 14 percent have freedom of decision, whereas in 56 percent the decision is made by the manager and in 28 percent by the hukumat directly. This is in striking contrast to the decision-making process in other dehkan farms, where 60 percent make the decisions themselves and the hukumat only intervenes in 5 percent of the cases (Zvi and Sedik, 2008: 51).
- 43 Article 5 of the law 'On Dehkan Farms' states, "Interference in the management of the activity of the dehkan farm from the side of state agencies and officials is not permitted..."
- 44 Other reports state that farmers growing cotton can earn far less than those able to grow other crops (International Crisis Group, 2005: 9).
- 45 See [www.indexmundi.com/agriculture](http://www.indexmundi.com/agriculture).
- 46 AAH's study of the financing of the cotton sector reveals that in 2003 Paul Reinhart paid in the vicinity of US\$400 per ton for raw cotton. Meanwhile, according to the investors, they provided somewhere between US\$250 and US\$350 per ha in terms of inputs and salaries to the farms (these numbers are likely to be inflated, as one of the most cited methods by which these investors have profited is by charging up to double the local market price for inputs), which yielded them up to 2 tons of raw cotton. This means that, by a generous estimate, the investors paid US\$150 per ton of raw cotton that they were selling for US\$400 as an export (Porteous, 2003: 14–15).
- 47 Clearly foot-dragging by and in the interest of influential people has played a central role. As Nissen (2004, quoted by Lipton, 2009: 225) puts it, "...as the process was getting under way...influential and educated individuals saw the personal gains to be made and took control of large tracts of land... Some were heads of local authorities [and] have been keeping farmers in the dark about their rights."
- 48 Olimov (2007: 8) notes that the 500 enterprises surveyed for a UNDP study reported fast average growth of capital assets, sales, exports and productivity levels between 2003 and 2006 (these variables rising by 19–28 percent for an average of 6–9 percent per year).
- 49 Babajanov and Khakimov (2010: 102) report that "in Tajikistan there are about 1.4 small businesses per 1000 people, whereas in the Russian Federation there are six, and in the European Union at least 30." The definition of a small business used in this comparison is not provided.
- 50 Olimov's sample of 500 firms was weighted towards larger ones, with only 171 having 10 or fewer workers (34.2 percent) and with a median size of around 20–25 workers (Olimov, 2007: 26); it was thus representative of SMEs rather than of microenterprises. Sources of start-up capital among these firms included 146 loans from a financial institution (*ibid.*), and some of these were probably multiple. If,

say, 100–125 firms got such loans, and they were the largest, that implies that very few firms currently with fewer than 100 workers did so. (On average, however, the firms would be smaller at the time of the loan, since they have grown in the interim.)

- 51 For the (mainly) SMEs in the sample analysed by Olimov (2007: 38), the share of working time spent on disputes with civil servants was over 5 percent for all but 23 percent of them, and over 15 percent for 31.4 percent of them.
- 52 SMEs cite the lack of finance and high interest rates as most frequent barriers to expansion, along with the low quality of the civil service, the shortage of electricity, weak transportation and onerous licensing requirements. Inadequate worker skills were not considered so serious a problem. Monopolistic practices and crime received medium billing (Olimov, 2007: 37). Unlike some other countries, labour market regulations do not seem to constitute a large barrier to the expansion of these firms, which report that workers often prefer to be hired on a part-time basis (*ibid.*: 40).
- 53 Based on the not very reliable national accounts figures, the bulk of the decline in the current price shares of these two sectors in GDP has come from falling relative prices.
- 54 The country has undertaken to implement two poverty reduction strategies designed under the tutelage of international financial institutions, and both have listed the agricultural sector as one of considerable focus.
- 55 Since economic growth was rapid between 1998 and 2011 (at an average of 7.7 percent, according to the World Bank Database, with some years even showing an annual GDP growth as high as 22 percent (2007)), one might guess that the willingness and capacity to invest in education would have risen as well but that, like income levels, it might not yet be at pre-crisis levels.
- 56 Under the Soviet system the minimal pension was 70 percent of the minimum wage, which was higher than it currently is in relation to a minimum acceptable consumer basket. At that time the system of social compensation reached a large proportion of the population (Babajanov and Khakimov, 2010: 83).
- 57 Improving Tajikistan's social services infrastructure will, among other things, require the design, provision and coordination of computer databases and networks, the organization of seminars on various social issues, conferences at which social-service personnel can exchange ideas on solving existing problems and so on.

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