

GDN Country Growth Study

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Barriers to Growth in Moldova

JEL keywords:

Moldova, CIS, transition, economic growth, trust, rule of law.

"[Life in anarchy] is solitary, poor, nasty, brutish and short"

Thomas Hobbes

"Incomes are low in most of the countries in the world, in short, because the people in those countries do not have secure individual rights."

Mancur Olson

"The inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World"

Douglas North

"Much of the security of person and property is the effect of manners or opinion"

John Stuart Mill

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INTRODUCTION

Gur Ofer (2000) offers a very appealing metaphor of transition. In this metaphor communist and market-based development paths were both aimed at climbing the same hill of development, but these paths were generally divergent. Transition is accordingly an attempt of post-communist countries to converge to market-based paths without losing previously achieved level of development. Central European countries achieved this goal in spite of temporary backslides and found the hard ground of sustainable development. These countries are now members of OECD, prestigious organization of the most developed countries and this success needs to be partly linked to the initial industrialization and investments in the human capital after Second World War. Positive achievements from this period were not wasted in the transition process. Other countries were less successful and Moldova is one of the least fortunate¹. It is enough to state that the output in Moldova during nineties reversed to level of late fifties and early sixties². In the world of Ofer's metaphor, we shall say that Moldova achieved quite impressive height during Soviet times, that was best reflected by her high score on human development index. However, in the period of transition, it was proved that the country does not really climb the development hill on its own, nor it can sustain its high position in the market environment. Moldova was subject to the dramatic free fall, that largely wiped out achievements of previous decades. Moreover, the country still has not found a new development path. At new lower position on the development hill, the country is trapped in the mud of uncoordinated policies and dysfunctional institutions. This failure is even more intriguing and calls for new explanations if we believe that "the policies to ensure growth are well known"³.

In this study we try to understand why transition in Moldova was so painful. We argue that the initial decline of GDP was related mainly to disintegration of Soviet economic system, very negative changes in the terms of trade (mainly increase of energy prices) and civil war, but the prolonged decline was a result of failure to create market supporting institutions conducive to growth of private entrepreneurship and investments. We analyze the relative importance of various growth factors identified in regional background papers (initial conditions, macroeconomic policies and structural reforms), but we also add another dimension of analysis. We name the issue of trust, as crucial in describing the relative performance in Moldova and other transition economies. This concept allows us to see the importance of the quality of formal and informal institutions in determining economic performance. We also point to the possibility of multiple equilibrium in growth prospects in transition. Fischer et al. (1996) note that there are "two forces: those arising from the transition and transformation process, and the basic neoclassical determinants of growth." In this paper we will deal mainly with the first set of forces, that condition the decline in Moldova. Only the right combination of these forces may establish the stage for the growth, subject to neoclassical mechanisms.

Important note is necessary here. This paper is devoted to the analysis economic performance of right-bank Moldova and does not attempt to explain the economic performance in Transnistria, self proclaimed separatist territory on the left bank of Dniester river. This decision is motivated by the desire to offer comprehensive and consistent picture of growth the Republic of Moldova under transition to market economy. Developments in Transnistria would require quite separate analysis.

¹ Changes in ranking of transition economies according to PPP GNP per capita reinforce this observation. Campos and Coricelli show that transition countries that initially were clustered in the upper middle income group are far more dispersed across the ranking ten years later. Specifically, in 1998 Moldova is the third poorest transition country (after Tajikistan and Kyrgyzstan), neighboring in international comparison with Haiti and Mauritania. At the same time most of central European countries remain classified as upper-middle income country. Moldova is also after 1998 classified as heavily indebted poor country (HIPC) by the IMF.

² De Broeck, and Koen (2000).

³ Fischer and Sahay (2000).

Political and economic conditions in Transnistria were quite different than in right bank Moldova even before the collapse of Soviet Union. Transnistria started to be a part of Soviet Union shortly after the WW I, while right bank Moldova remained part of Romania until WW II. Transnistria was also much more industrialized during the Soviet times (in particular heavy industry was located predominantly there) and populated mainly by Slavs unlike mainly rural right bank Moldova with the dominant Moldovan and Romanian population. These differences would obviously not justify exclusion of Transnistria from this analysis. However, the separatist unrecognized state was created on the territory of Transnistria as a consequence of armed conflict in 1992 and it conducted practically independent and contradictory economic policies ever since. Transnistria has its own custom system (uncoordinated with that to Moldova) and currency as well as monetary and fiscal policies. While Moldova has chosen the strategy of democratization, transition to market economy and establishing close links with the west, Transnistria never officially abandoned communism and never recognized the collapse of the Soviet Union. Neither liberalization nor macroeconomic stabilization were accomplished in Transnistria and privatization was never on policy agenda. Indeed the authorities never admitted the need of the structural reforms and printing press remain the major instrument of economic policy that provides resources necessary to support unrestructured state owned enterprises. To complicate the situation Transnistria do not publish statistics based on international standards and disclosure of available statistics is subject to discretion of security apparatus. Therefore in many respects economic policies and their political underpinnings in Transnistria are comparable to those implemented in Belarus, but are very distant from those of right-banked Moldova. Instead of writing a paper consisted of two essentially independent studies, we decided to build only one but more comprehensive and better documented analysis of developments in the right bank Moldova. These developments are obviously still affected by the unresolved problem of Transnistria as we show throughout the paper. Accordingly, all following analysis and statistics describing transition developments relate to the right bank Moldova⁴.

The remainder of this paper is constructed in the following way. Chapter one gives the overview of developments of Moldovan economy during the transition period and evaluates it against the experience of other transition economies. Chapter two offers extensive presentation of economic developments in Moldova during Soviet times and proposes the framework for understanding of transition decline. Chapter three concludes.

⁴ In contrast, section describing growth record during Soviet period reports statistics for right and left bank Moldova jointly unless stated indicated otherwise.

I. OVERVIEW

The first stage of economic transformation in Moldova was initiated in 1990. Liberalization of prices and trade as well as enterprise operations were all introduced between 1990 and 1992. The first legal documents that formed the basis of the changes in the national economy was the resolution of the Parliament “Regarding the concept of transition to market economy” (1990) and the “Program of transition to market economy in Moldova” (1991). Adoption of the first set of laws oriented towards the market economy including laws regarding ownership rights, privatization, reform of Land Code followed soon. The more comprehensive program of transformation and stabilization of the Moldovan economy was worked out by the Cabinet jointly with the IMF and the WB in 1993⁵. It aimed to achieve five main objectives: (1) privatization and restructuring of state enterprises; (2) support for the private sector (notably to small and medium sized enterprises) and investment promotion; (3) modernization of the financial system (banking, budget); (4) development of an affordable social safety system (transformation from the active employment policies to anti-poverty measures); (5) support of the policy reforms, demonstrated through the establishment to regulatory and legislative frameworks. Accordingly the new Constitution (July, 1994) stated that Moldova is “a market economy, socially oriented, based on both private and public ownership, involved in free competition”. The Republic of Moldova was the first of the post-soviet countries that has been accepted to the Council of Europe, and signed a Partnership and Cooperation Agreement with the European Union in November 1994. The following period brought many important achievements. The mass privatization program was implemented (1500 enterprises), the National Bank of Moldova introduced the new stable national currency and initiated credit auctions. Accordingly, the rate of inflation was reduced from 1184% in 1993 to 30% in 1995. The Council of State Creditors and ARIA agency restructured the first group of industrial enterprises. In June 1995 the Stock Exchange started its operations. Most industrial enterprises have been transformed into Joint Stock Companies. Although the reform in the agrarian sector was suspended and the growth of the private sector was rather weak, Moldova was viewed as a star performer at this time. In respect to implemented reforms, the country was ranked by the EBRD higher than most of CIS countries, Romania and Bulgaria. “The Economist” (1995) reports: “Moldova is a model of correct reform, and the fact that it is a small country, transforms it into a perfect laboratory for running reforms”.

Having apparently created the legal basis of the market economy and carrying out a macroeconomic stabilization (reduced inflation, stable national currency) Moldova nevertheless failed to enter a period of economic growth after 1995. Reforms significantly slowed down in next several years. Foreign loans were used for consumption, structural reforms were postponed, political issues prevailed upon economic ones. The situation of the economy after 1995 could be described as a “stable depression” that under the impact of external and internal pressures emerged to open crisis in 1998. Prospects of growth in the post-crisis period are far from clear. Another article in “The Economist” (2000) is titled “Can Moldova get worse?”. We investigate first whether such disappointment can be justified by comparison of economic performance in Moldova with other transition countries.

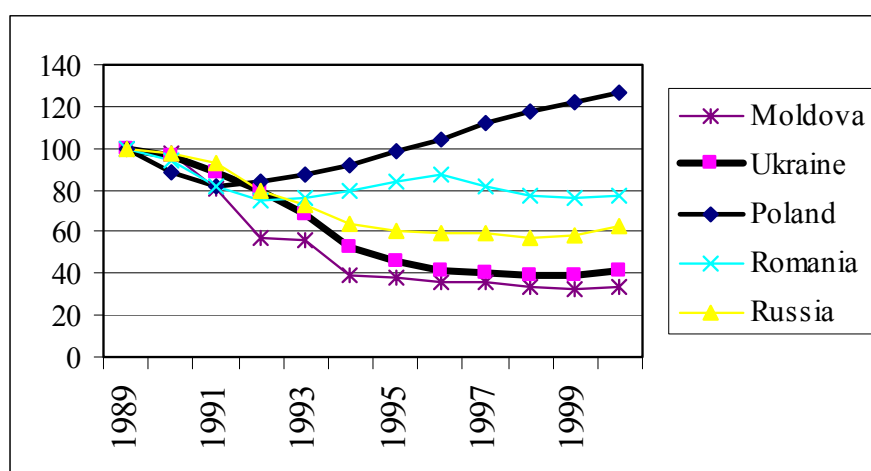
⁵ Gudym (1998), Nantoi (1998).

A. Economic Performance in Moldova and in other countries in transition

GDP dynamics

The most important features that distinguish Moldova from more successful transition countries is the very deep initial decline in output and lack of the sustained recovery (the raising fragment of famous U-shape transition growth pattern). The output stabilization in 1993 was followed by sharp decline in 1994 and “stabilized” recession in 1995 and 1996. Similarly the moderate recovery in 1997, welcomed as a breakthrough was followed by two years of larger declines in 1998 and 1999. It is also rather controversial to argue that the positive growth achieved in 2000 is sustainable and marks new medium term trend. The persistence of transition recession makes Moldova a typical member of the group of European FSU. This classification of Moldova was however not obvious in the beginning of transitions process. As the country of predominant Romanian population and belonging to Romania before the war, it could have been expected to converge to Romanian pattern of development. Quite clearly, it is not the case, Moldova’s economic results are much more similar to these of Ukraine, another neighbor than those of Romania. Figure 1 compares growth performance of Moldova to her two neighbors. Additionally performance of Russia, the largest CIS economy and Poland, representing successful transition economy are shown. Among these five countries the extent of aggregated decline is largest in Moldova.

Figure 1. Output path in transition countries (1989-100)



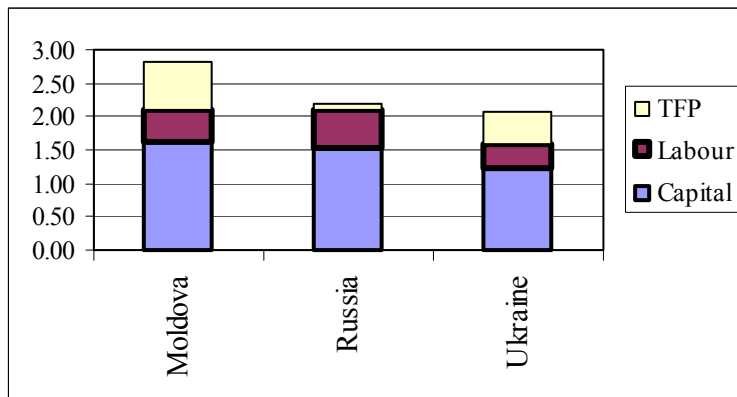
Source: IMF IFS and IMF Country Reports.

Growth accounting

Growth accounting links change in product to the changes in the size and the composition of the labor force and other factor inputs. This analysis shows that the economic decline in Moldova cannot be explained by changes in factors of production but rather needs to be assigned to the collapse of total factor productivity (TFP). Similar result for other FSU countries in the region is also provided by De Broeck and Koen (2000). Our analysis will therefore be concentrated on explanations of changes of TFP. As the comparison of the pre-transition and transition changes shows, there was major structural break and mechanisms that explain rapid TFP declines in transition are different from those conditioning TFP stagnation in last two decades of communism. True there was the important outflow of high skilled migrants to Russia and Israel and also to some western countries. Moldovans also work abroad as seasonal workers. Further on, there was decline in the quality of access to education, especially in the rural areas and contraction in the secondary school enrollment rates. Depreciation of capital was even more rapid and investments much lower

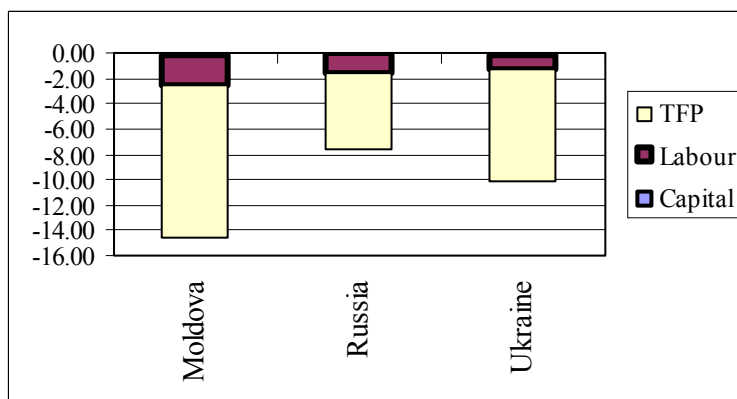
than accounted in official statistics. However not these developments were driving economic performance. Rather they were by-products of more fundamental mechanism that led to the economic decline. We will attempt to describe it in the next chapters of this paper.

Figure 2. Contributions to growth 1971-1990 (annual average).



Source: De Broeck and Koen (2000).

Figure 3. Contributions to growth 1991-1997 (annual average).



Source: De Broeck and Koen (2000).

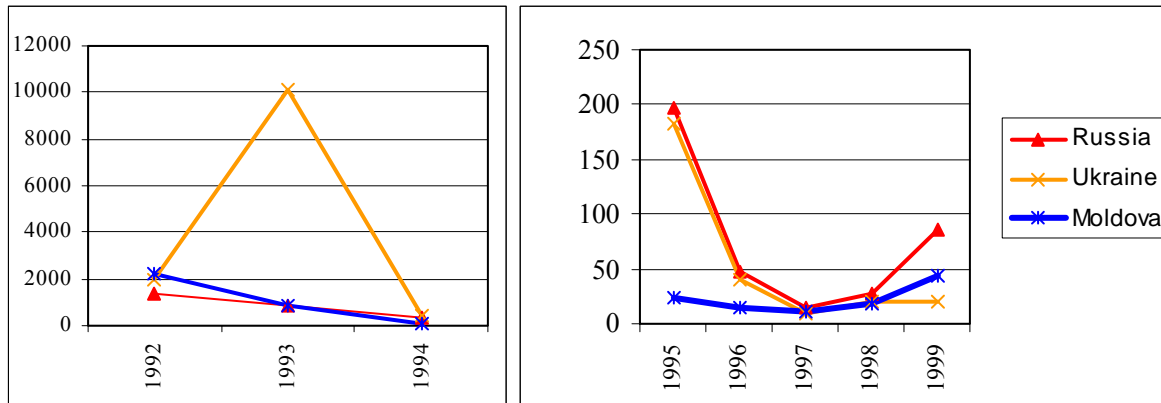
It is also important to note that only very small fraction of the TFP decline can be assigned to the sector reallocation from more productive sectors (industry) to less productive sector of services⁶. First De Broeck and Koen (2000) provide the evidence that in countries such as Moldova the reallocation to services was not significantly higher than in other countries at the similar level of development (unlike in the more successful CEE economies), although the decline of share of industry was much higher. Secondly, the fall in TFP was characteristic for all sectors. Accordingly in Moldova especially the TFP losses stemming from reallocation contributed less than 1% of total change. V-shape development in TFP characteristic for more successful economies indicates that some of decline had temporary character. However developments in Moldova has not exhibited this distinct feature as efficiency losses were not reversed so far.

Macroeconomic stabilization and debt problem

⁶ Evidence that new small-scale private sector operations, predominantly in services did not lead to major improvements in productivity (even under the pre-transition shortage of services) is provided by Commander et al. (1999).

Moldova as other countries in the ruble zone experienced hyperinflation between 1992 and 1993, however since 1994, inflation rates were reduced sharply. As most of authors point to bringing down inflation as the most important macroeconomic factor of growth, this led many observers to claim Moldovan stabilization successful.

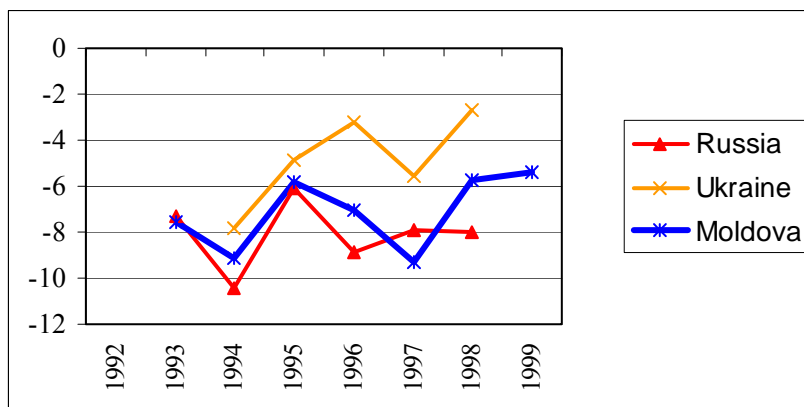
Figure 4. Annual inflation, end-of-period.



Source: IMF IFS.

However, the stabilization was not supported by the fiscal tightening. This was caused by unresolved structural problems of Moldovan economy. Dabrowski (1999) writes "Experience of transition process gives a lot of evidence that fiscal policy performance reflects a quality of economic policy and systemic reforms in the specific country. Any inconsequence of the conducted policy, delay in transition on the microeconomic level, weakness of government institutions and favorable political climate for intensive rent seeking negatively influence fiscal balances. Thus fiscal equilibrium depends not only on the fiscal policy itself but also on the speed, quality, and consequence of overall reform process."

Figure 5. Budget deficit, percentage of GDP.

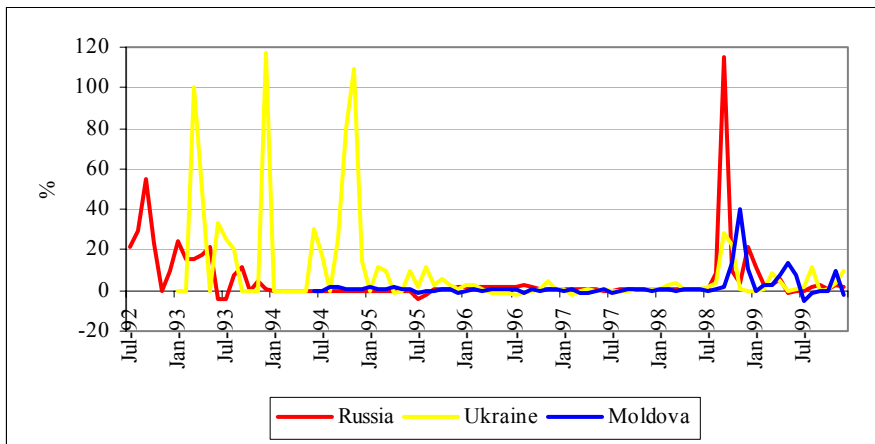


Source: IMF IFS.

Even under fiscal policy that is unsustainable in the longer run, short-term monetary stabilization can be achieved. This was accomplished by stabilizing exchange rates beginning in mid-1994. The fragile stabilization lasted only until the 1998 currency crisis. The immediate cause for it was clearly rapid deterioration in the balance of payment in Moldova after the outbreak of Russian crisis in August 1998. However, the negative impact of Russian crisis was severe only in countries

where the same underlying problems have been present. The Russian crisis played the role of a trigger that brought inevitable collapse of unsustainable policies of Moldovan authorities⁷.

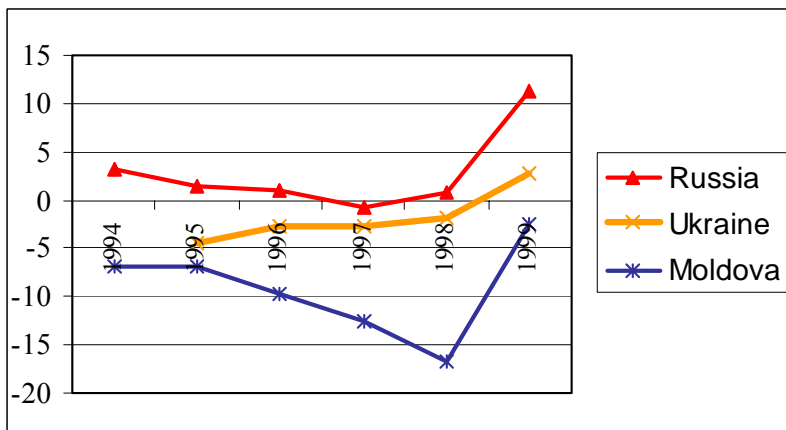
Figure 6. Exchange rate changes (weekly).



Source: IMF IFS.

The stabilization based on stable exchange rates under expansionary fiscal policies led to the loss of competitiveness and very large and increasing current account deficit before the currency crisis of 1998 occurred.

Figure 7. Current account balance, percentage of GDP.



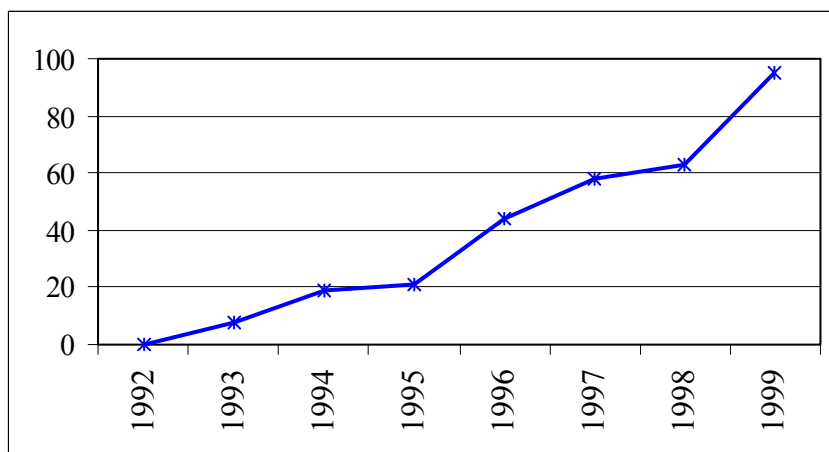
Source: IMF IFS

Moldova relied mainly on government official transfers and contracted foreign debt to support exchange rate stabilization and finance budget deficits⁸. Resulting twin deficits (budget and current account imbalances) led to the accumulation of very large external debt and finally brought the financial crisis.

Figure 8. Foreign debt on Moldova, percentage of GDP.

⁷ See Radziwill et al (1999) for the analysis of character and causes of financial crisis in Moldova in 1998.

⁸ See Antczka et al.(2001) for the analysis of the role of international financial institutions in this respect.



Source: IMF IFS.

Therefore, the financial crisis in Moldova was caused by a fundamental weakness of the macroeconomic situation in the country. The first requirement of an efficient policy mix is that both fiscal and monetary policies are each on a sustainable path. This was not the case in Moldova: macroeconomic developments in Moldova before 1998 exhibited striking contrast between consequent tight monetary policy and loose, arguably unsustainable fiscal policy. The latter led to high absorption in the economy that generally should be favorable for real growth. However the aggregate demand was not met by the supply side response due to the impeded restructuring process. It fuelled imports and the trade balance steadily deteriorated. At the same time, capital inflows necessary to finance the budget deficit, combined with domestic restrictive monetary policy, prevented the depreciation of the currency, further undermining prospects of export led recovery. The ultimate result of the policy mix was the rapid accumulation of external debt and expenditure arrears. Both are detrimental to growth in longer term.

B. Moldova and cross-country growth studies

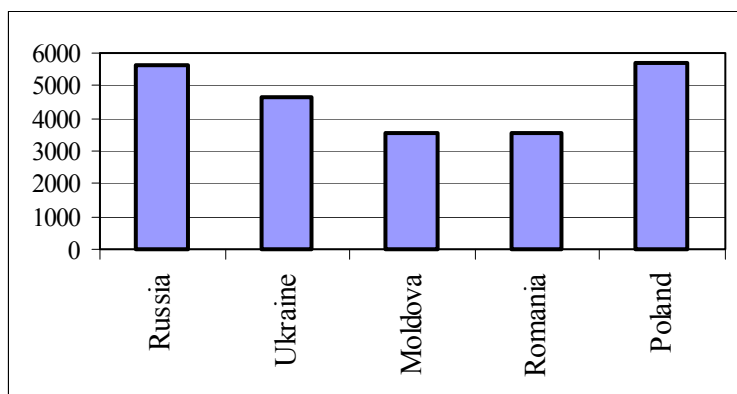
Cross-country background papers and former research established certain growth mechanisms characteristic for countries in transition as a group. The analysis has been focused on the two fundamental questions: 1) what was the driving forces behind growth: policies or initial conditions. 2) what was the optimal speed of reforms. This section attempts to assign the relative importance to various growth factors in Moldova using conclusions from these papers. First, coefficients obtained from the cross-sectional regression show what factors determine the position of Moldova. Secondly the size of residual would reveal how well cross-sectional results explain development in Moldova. As these residuals are very large we argue that standard approach somehow fails to address the most fundamental barriers to growth. This result points to the importance of variables that were not included in regional analysis or more generally to improper framework of analysis. We will discuss alternative framework in later chapters of this study. However, following the approach widely followed in the literature we investigate first initial conditions, that Moldova was facing at the beginning of the reform process and that could have influenced its relative performance.

Initial conditions

Figures below compare basic parameters of Moldovan economy in 1989 with those characterizing its two neighbors and also Poland and Russia. First, Moldova in 1989 had GDP per capita calculated on PPP basis at virtually the same level as Romania but almost 25% lower than Ukraine.

With respect to Poland and Russia the gap was even higher with Moldovan GDP per capita constituting less than two thirds of these two countries.

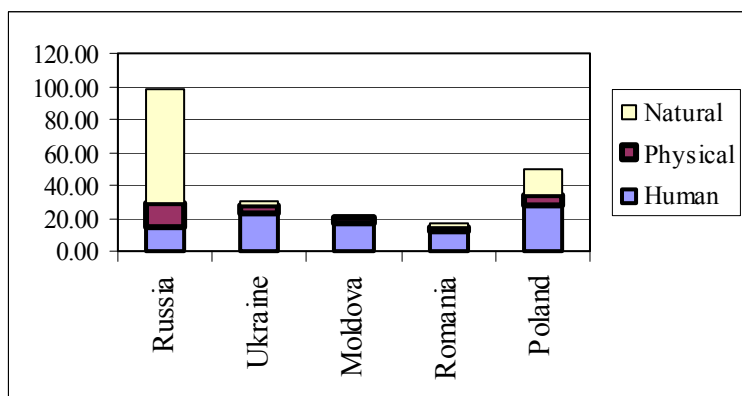
Figure 9. GDP per capita, PPP, 1989.



Source: Fischer and Sahay (2000).

This poor result is partly explained by the absence of natural resources, but also high share of agriculture and rather low level of human capital.

Figure 10. Elements of national wealth, 1990.

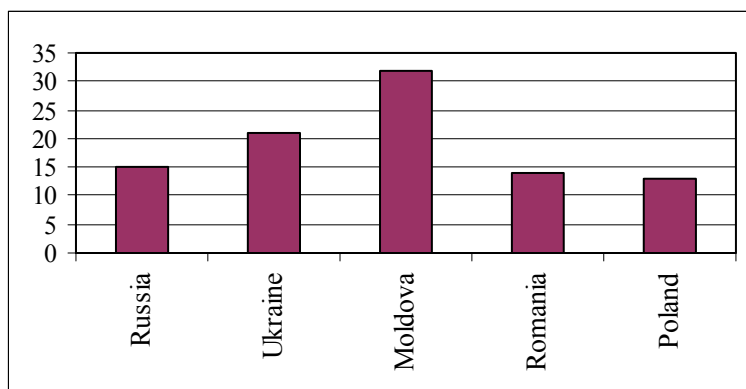


Source: World Bank (1995, 1999), taken from Campos and Coricelli (2000), table 3.

Moldova remains characterized by high share of agriculture. The dependency on agriculture was reinforced after the separation of Transnistria in a result of civil conflict (1992). This event brought a loss of significant share of Moldovan heavy industry and main energy generation station located in this region⁹.

Figure 11. Share of agriculture in GDP, 1989.

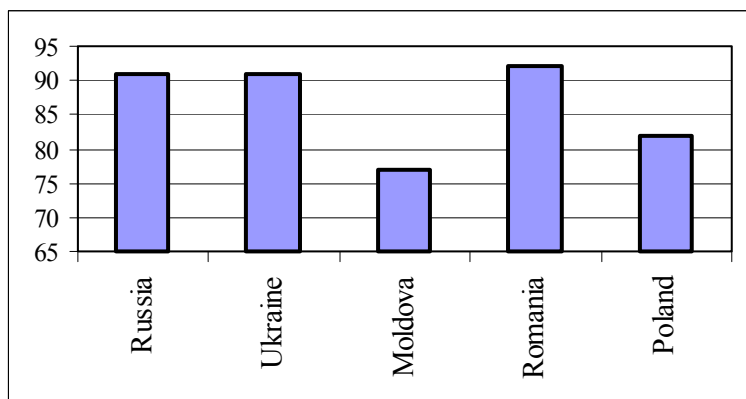
⁹ Because of high dependence Moldova's economy on agriculture, weather patterns is a very important factor for economic situation in the country. The Republic of Moldova is situated in a zone of risky dry-land farming. The meteorological data for a period over 150 years, and statistical data, show that the country is periodically subjected to natural disasters – droughts, frosts (late spring and early autumn), hail storms, floods, torrential rains and landslides. Starting from 1982 droughts repeat each third year, and since 1989 – each second year. To alleviate the consequences of those natural calamities always implied conducting measures to adapt crop location, technology and work organization. In the aftermath of collapse of USSR, funds for prevention were diminished and exposure increased further.



Source: Fischer and Sahay (2000).

High share of agriculture is related to low secondary school enrollment that made Moldova an outlier among analyzed countries, pointing to the relative backwardness in the economic development.

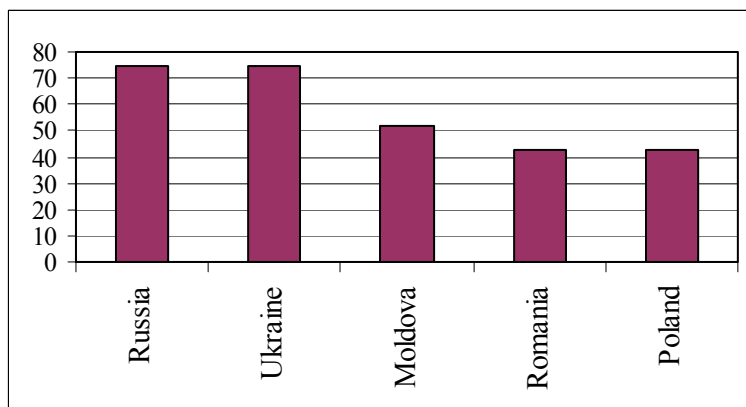
Figure 12. Secondary school enrollment, 1989.



Source: Fischer and Sahay (2000).

At the same time the level of distortions was similar to other FSU counties (measured by the share of CMEA in trade) but much higher than in Romania. It is although Moldova was under the communism for shorter period of time than Russia or Ukraine.

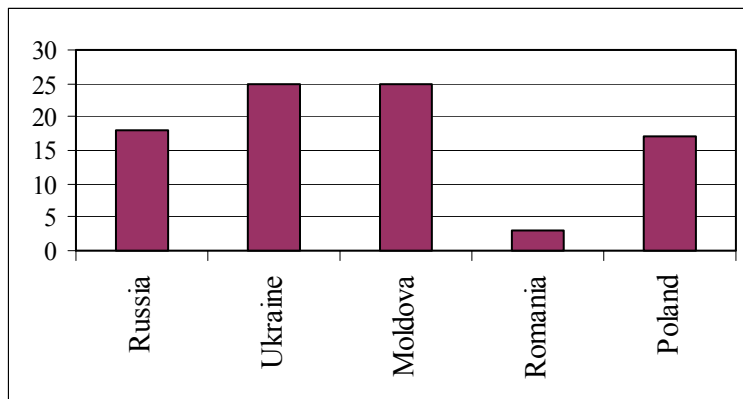
Figure 13. Number of years under communism.



Source: Fischer and Sahay (2000).

As a result Moldovan production was highly integrated with regional trading partners within USSR and specialized. Agro-industry and military complexes dominated in national economy. Moldova supplied to USSR market 95% of total export. By the some estimation around 60-70% of Moldovan machinery was supplied to USSR military complex. Administered relative prices between imports and exports were artificial. Therefore Moldova was very lavish regarding energy consumption while it inherited very inefficient energy users. The sharp and significant deterioration of terms of trade has therefore rendered the large impact on the economy that we describe in detail in the next chapter of this paper.

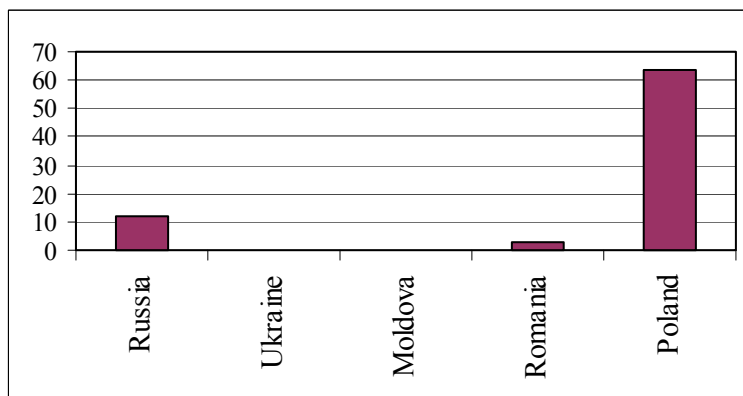
Figure 14. Share of CMEA and intra-FSU in GDP



Source: Fischer and Sahay (2000).

Unlike Poland and similar to other FSU countries except Russia, Moldova entered the transition without any foreign debt.

Figure 15. Pre-transition foreign debt, percentage of GDP.



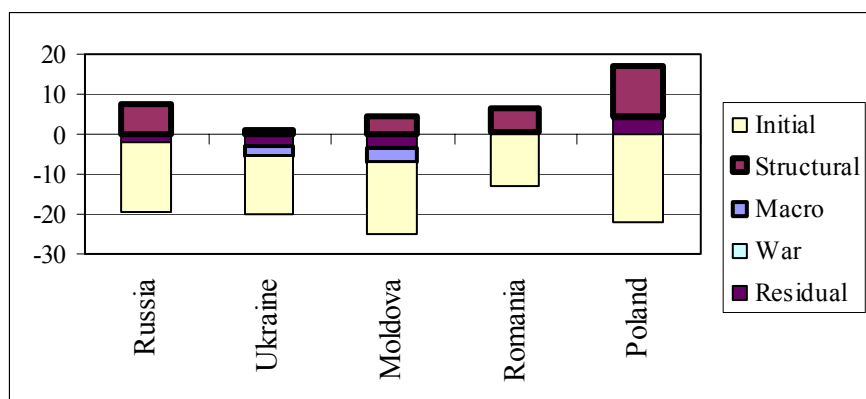
Source: Fischer and Sahay (2000).

Key conclusion need to be kept in mind: Moldova in 1990 resembled in terms of economic distortions other FSU countries more than Romania. At the same time, in comparison to Ukraine and Russia it was less developed in terms of industrialization, schooling and income per capita. Although these initial conditions had the strong direct impact on the initial output decline in Moldova, we shall argue that the same is not true about subsequent prolonged recession. In the detailed analysis we show that initial conditions influenced economic outcomes in later periods mainly indirectly, i.e. through impact on policies.

Regression analysis

Having established initial conditions of Moldova we are ready to see them in the broader perspective. One of the recent attempts to explain the difference in evolution of output in transition economies was presented by Berg et al. (1999). The special feature of the study is the analysis of the U shape of initial recession and later recovery, with the specification tailored for each of these periods. Authors accordingly show that structural policies had much more impact on growth than initial conditions and to some extent also macroeconomic policies. According to this contribution initial conditions (mainly trade dependency and over-industrialization) determined extent of the initial GDP declines in transition economies. However in Poland and to some degree in Russia and Romania this negative influence was moderated by the progress of structural reforms. In Moldova, this positive effect was weaker, although still stronger than in Ukraine. Lack of macroeconomic stabilization affected negatively growth in Moldova and again this property links Moldova to Ukraine. What is characteristic for Moldova is the relatively large negative residual: growth is actually lower than implied by the cross-country regression. This result can be probably only partly explained by the war effect on Moldova that was missed in the specification (Russia and Ukraine also exhibit substantial negative residual) .

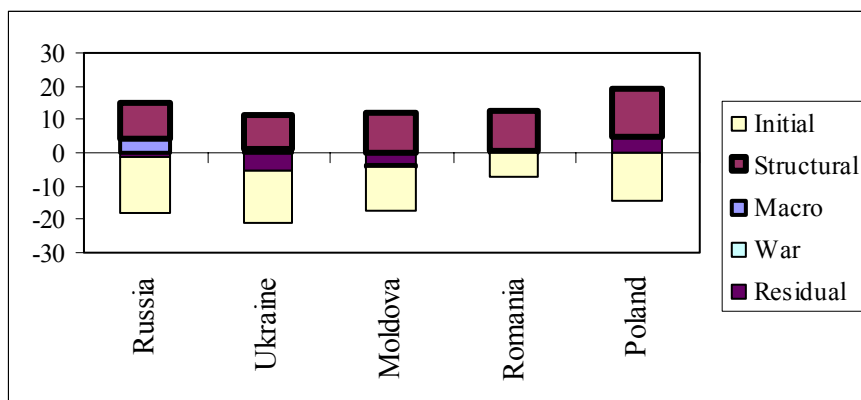
Figure 16. Accounting for growth: average for transitions years 0, 1 and 2.



Source: Berg et al. (1999).

Remarks: Transition years 0, 1 and 2 correspond to calendar years 1990, 1991 and 1992 in Romania and Poland and years 1992, 1993 and 1994 in other countries. Macroeconomic variables include inflation and fiscal balance as percentage of GDP and dummy for exchange rate regime. Structural reform indices include: internal liberalization (price liberalization and dismantling of trading monopolies), external liberalization (removal of trade and foreign exchange rate controls, reductions), privates sector conditions (privatization and financial sector reform). Initial conditions include: pre-transition PPP income and per capita growth, degree of urbanization, natural resource endowment, estimated of repressed inflation, actual inflation and fiscal deficit, trade dependency, share of agriculture, measure of over-industrialization, time under communism, pre-transition reforms.

Figure 17. Accounting for growth: average for transitions years 3 and 4.



Source: Berg et al. (1999).

See remarks to figure 16.

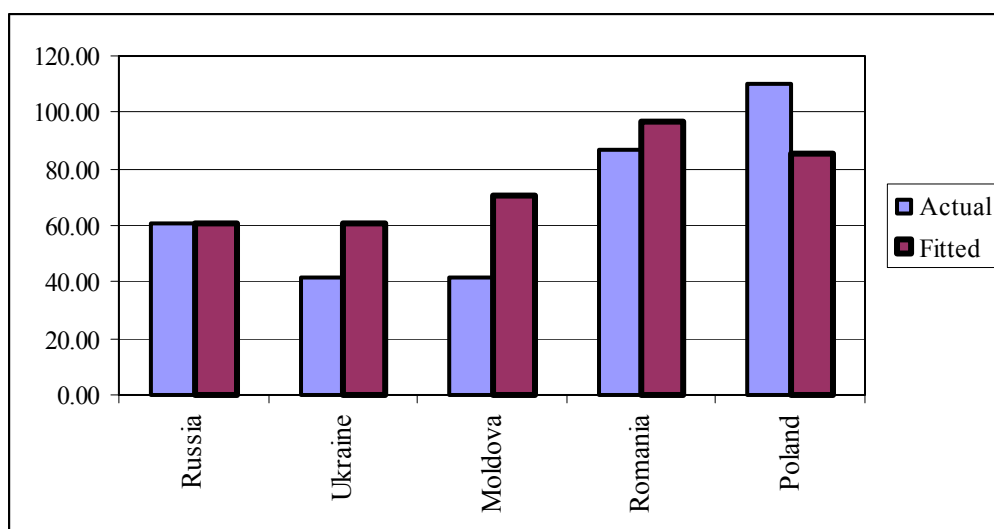
The situation is changed in next two years of transition: impact of initial conditions gradually vanishes, and structural reforms start to be more prevailing in most countries in the region. Accordingly, differences in the structural reform contribution (from 9.8% in Ukraine, 12.3% in Moldova to 14.4% in Poland) are very important for explaining the growth differentials. What draws our special attention is the size of residuals. While in Poland there is a large positive unexplained part of growth, residuals are large and negative in Ukraine and Moldova¹⁰. In our understanding these residuals capture unaccounted effects of quality of institutions and trust as the authors do not account for the role of institutions in the reform process and do not incorporate measures of property rights, quality of legal framework, governance or corruption. The difference in residuals reflect also the positive impact of aspirations of joining EU against the difficulties of building new national and geopolitical identity. Accordingly, we conclude that the major weakness of analysis of Berg et al. (1999) is therefore neglecting the impact that initial conditions had on policies and quality of institutions.

Fischer and Sahay (2000) also provide results that are broadly in line with Berg et al. (1999). Output decline is attributable to adverse initial conditions and to lesser extent to macroeconomic imbalances. There is also no negative impact of structural reforms as impact on state sector is offset by the growth of private one. Again, structural reforms and also macroeconomic tightening are behind recovery. Moreover, authors show that countries that reform faster, also recover faster. Additionally, in countries of FSU lack of structural reforms is more important in explaining prolonged decline than initial conditions. Poland and Baltic states are believed to have the worst initial conditions but managed well due to good macroeconomic and structural reforms. Accordingly, Moldovan failure to achieve growth would be attributable foremost to the lack of structural reforms. Although initial conditions¹¹ explain large part of overall economic decline ($R^2=46\%$), this result fails very much to work in case of Moldova. Again the former phenomenon appears: while Poland has important positive residual, Ukraine and especially Moldova exhibit large negative residuals, that double the size of aggregated decline.

Figure 18. Cumulative GDP changes.

¹⁰ Existence of negative growth residuals for CIS countries is also confirmed by Castenheira and Popov (2000).

¹¹ Among initial conditions only two variables prove to be significant: secondary schooling and number of years under communism



Source: Fischer and Sahay (2000).

Underperformance of Moldova in comparison to regression results is not reduced if macroeconomic and structural policies are accounted for. Indeed results of this regression based on panel data from presented by Fischer and Sahay (2000) suggest that in peaceful times Moldova should grow on average by 3.5% annually. Especially surprising are results of an equation that indicates that low inflation combined with higher budget deficits contributes to higher growth rates. If this result was true Moldova should be growing fast, as a country with one of the lowest inflation among FSU countries and relaxed fiscal policy. However, what is the crucial conclusion from this contribution is the often neglected link between initial conditions and policies. “The extent of reforms has been strongly correlated with the initial conditions – that the reformers are those closer to Western Europe, with a shorter period under communism and more advanced economically when they fell under Soviet control”. We will build up on these argument in next chapters of this paper. We will more precisely argue the most important impact of initial conditions on growth in medium term operated through the quality of institutions. The role of institutions is underlined by EBRD (1997) that provides two sets of estimates of long run growth rates for transition countries. First set of forecasts are based on Levine-Renelt specification, the second is augmented by control for the quality of institutions. Even for countries with the best developed institutions among transition countries, predictions of growth rate in the second case are reduced by 1.5 percentage point. We will show in our further analysis that institutions might have much more negative impact on growth in Moldova. We argue that they lead to non-linearity in growth rates and may prevent growth completely.

While Berg et al. (1999) and Fischer and Sahay (2000) see the prominent role of progress of reforms, Heybey and Murell (1997) find that initial conditions are “much more important than policy variables in determining growth performance”. This view is somehow upheld by Campos and Coricelli (2000) that tend to assign greater role to the initial conditions, while the role of liberalization reforms as measured by EBRD are rather ambiguous and depend on initial conditions. What is crucial is the distance from market economies in terms of physical distance and time spent under communism and relative distortions. Somehow surprisingly growth rates depend also positively on initial income. The role of institutional variables is weak relative to results of former research, but it may be explained by the correlation with other variables, especially initial conditions. Macroeconomic stability as measured by inflation and fiscal deficits have positive influence on growth. Still authors conclude that “the transition experience raises many new challenges to the conceptual frames we use to study economic growth”. We share this view and argue that the depth of decline in Moldova cannot be well explained in the framework of standard neoclassical growth theory.

Summary

Studies devoted to the explanation of economic decline and growth in transition exhibit some sort of confusion. This is mainly result of very divergent paths that transition economies followed and are not well accounted for by easily measurable factors like macroeconomic stability or progress of privatization and liberalization. Increasingly, attention is diverted towards less tangible factors as quality of institutions and the rule of law, the geographical and cultural distance from Western Europe. Although these variables prove to have high explanatory value, there is not clear theoretical underpinning. The mechanisms of transmissions are also not fully understood.

II. DETAILED ANALYSIS: GROWTH AND DECLINE IN MOLDOVA

General objective of the research is to shed light on the mechanisms of growth in transition. Cross-country background papers established certain growth determinants but arguably failed to give convincing explanation of divergent growth paths and especially dismal performance in the least successful countries. In the following section we will present the general framework that can in our opinion explain the growth pattern in Moldova during the transition in the more consistent way. However, we will start with explaining economic developments prior to transition and its impact on the transition process itself.

A. Soviet times: growth through factor accumulation

At the end of XIX - beginning of XX centuries the Bessarabia (a province of Russia) was a typical agrarian remote area of predominant grain specialization. In 1913 the most part of labor force was used in agriculture, no more than 10 thousand workers worked in industry. The technical park of farming consisted of manual and horse working instruments: 5-6 thousand ploughs, about 180 thousand horse ploughs and twenty reapers and threshing machines. Industrial manufacture had a primitive character with prevalence of manual work. Only 78 enterprises had more than 15 workers and there was only one enterprise that had more than 200 workers. Overwhelming number of enterprises processed agricultural raw material. Bessarabia exported grain (up to 60 % of total output), grape wine, and fruits. Among 72 provinces of Russia the Bessarabia kept first place in production of corn, sixth – of grain and barley, and fifty-fifth - of industrial production.¹² The demand of internal market, even in simple equipment, was covered by import.¹³

In 1918 the part of Bessarabia, located on the left bank of the Dniester (Transnistria) was included in USSR as an autonomic republic of the Ukrainian SSR, but the territory located on the right bank - in Romania. The significant volumes of the investments from the central government were directed to the left-bank Moldova economy. As a result the industrial output in this territory in 1939 in comparison with 1913 increased 33 times, i.e. the rate of growth was four times larger, than the average one for the USSR¹⁴. The number of enterprises grew from 19 (without mill enterprises) in 1924 to 235, among them was a group of the largest in the country canning and wine factories. Alongside with the industrialization, other direction of the reforming of the economy was the collectivization of agriculture: in 1940 98,2 % of peasant farms were collectivised. The machine park consisted of 1,74 thousand of tractors and about 500 combines in almost thirty machine-tractor

¹² Lashcov (1912).

¹³ Gudym (1969).

¹⁴ Gudym (1967).

stations. In conditions of a surplus of the labor force and significant investment flows from the central government the processes of industrialization and collectivisation brought significant economic gains for the left-bank Moldova. However these processes were accompanied by an interdiction of the private property, infringement of democratic freedom of the citizens, mass repressions among the most active members of a society and advanced intellectuals.

Practically investments were not directed to economy of right-bank Moldova, which occupied almost the seventh part of Romania territory and sixth part of its population. For 1919-1937 the share of Bassarabia in Romanian industry has fallen from 3,8 % up to 2,3 %, the number of the enterprises has decreased by quarter, and number of employees - by 22,3 %. There were several reasons for such disappointing performance, that included generally low level of economic development of Romania, which was one of the poorest countries of Europe at that time and high level of political uncertainty concerning the future of Moldova that discouraged investments. In addition, the great depression affected economic level of right-bank Moldova through the reduction of demand for products of agriculture sector.

Economic development after Second World War

The Republic of Moldova in the present borders (including Transnistria) was formed as a Republic of USSR, after 1940 and therefore was subjected to the economic policies of extensive growth pushed by central authorities of Soviet Union. In specific the State Planning Committee of USSR aimed at the elimination of gaps in economic development in various regions and liquidation of industrial or agrarian specialisation¹⁵. As a result of this policy the economic structure of Moldovan economy has significantly converged in the direction of the general Soviet pattern during the period 1940-1990.

Table 1. Structure of Moldova's gross production, current prices.

| | 1940 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|-------------|------|------|------|------|------|------|------|------|
| Industry | 14.4 | 43.1 | 47.1 | 52.1 | 56.5 | 58.5 | 58.6 | 56.1 |
| Agriculture | 76.6 | 43.2 | 37.7 | 30.5 | 25.4 | 22.9 | 24.2 | 26.9 |
| Other | 9.0 | 13.7 | 15.2 | 17.4 | 18.1 | 18.6 | 17.2 | 17.0 |

Source: Statistical Office of Moldovan SSR.

Remark: Including Transnistria.

Table 2. Structure of USSR's gross production, current prices.

| | 1940 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|-------------|------|------|------|------|------|------|------|------|
| Industry | 45.7 | 59.4 | 63.3 | 63.6 | 64.7 | 63.5 | 58.6 | 56.3 |
| Agriculture | 53.5 | 21.4 | 16.9 | 16.1 | 14.2 | 14.0 | 15.1 | 13.4 |
| Other | 0.8 | 19.2 | 19.8 | 20.3 | 21.1 | 22.5 | 26.3 | 30.3 |

Source: Statistical Office of Moldovan SSR.

This convergence required large investments that also helped in the successful post-war restoration of economy in the late 40s and in the 50s. The economic growth in Moldova in this period was well oriented given Moldovan comparative advantage. The significant flow of the investments (mainly from the central budget) was directed to a food-processing industry and agriculture, the share of which in those years it was equal about 4/5 of total gross output of Republic. A fixed capital in

¹⁵ The maximal proportion between regions on parameters of industrial production was established at 1:38 in 1926, 1:4,6 in 1940, 1:3,4 in 1965 (Economic problem of allocation of USSR productive forces. – Moscow, 1969).

industry increased 6,5 times and output 2,9 times while a share of a light industry in total industrial output increased 2,7 times up to 11,4 %. During 1950-1958 the growth rates of industrial output of Moldova exceeded 1,47 times that in the USSR, specifically in food-processing industry - 1,6 times, in light industry - 2,14 times, in machines and metal treatment - 1,2 times and in construction materials - 1,57 times. Only rates of economic growth in Baltic republics were higher than in Moldova in this period. Such fast growth was possible due to the fast domestic capita accumulation and significant financial transfers from the central budget of USSR. Besides, the qualified manpower from other regions of the Union was directed to Moldova. Production infrastructure was developing at high rates throughout the period. One of the largest hydro power station in southern western USSR was built in Moldova and electric power and gas systems of the republic were integrated to the power grid of the European USSR. The reconstruction of transport network, especially highways promoted development of economy. The extent of roads with asphalt carpet has increased from 1,9 thousand kilometers in 1965 (15 % of total length of roads) up to 5,0 thousand kilometers in 1985 (54 % of total length of roads).

Table 3. Comparative structure of investment, %.

| | 1961- 1965 | 1966- 1970 | 1971- 1975 | 1976- 1980 | 1981- 1985 | 1986- 1990 |
|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Industry | | | | | | |
| USSR | 35 | 34 | 34 | 34 | 37 | 37 |
| Moldova | 24 | 21 | 20 | 22 | 24 | 23 |
| Ratio, (USSR=1) | 0.69 | 0.62 | 0.59 | 0.65 | 0.65 | 0.62 |
| Agriculture | | | | | | |
| USSR | 18 | 20 | 23 | 24 | 22 | 20 |
| Moldova | 35 | 37 | 39 | 39 | 35 | 30 |
| Ratio, (USSR=1) | 1.94 | 1.85 | 1.70 | 1.63 | 1.59 | 1.50 |
| Other | | | | | | |
| USSR | 47 | 46 | 43 | 42 | 41 | 43 |
| Moldova | 41 | 42 | 41 | 39 | 41 | 47 |
| Ratio, (USSR=1) | 0.87 | 0.91 | 0.95 | 0.93 | 1.00 | 1.09 |

Source: Main Statistical Office of USSR, Statistical Office of Moldovan SSR.

Remark: Including Transnistria.

The new stage in economic development in Moldova started since 1960. In the 60s hundreds of modern enterprises of electrical machines, measuring devices, cement, construction materials, furniture and products from synthetic materials were located in Moldova. In the 70s and the 80s enterprises of metallurgy, computer facilities, TV sets, technological equipment, agricultural machines and perfumes-cosmetic industry and other are put into operation. By 1990 energy, machinery and metal treatment, chemical and wood processing comprised already about third of Moldovan industrial production. New manufactures promoted of appearance of tens research and technology institutes, design bureaus and machine test stations.

Table 4. Structure of Moldova's industry output, %.

| | 1950 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Industry-total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Electricity, gas and supply of water | 1.6 | 1.3 | 1.9 | 3.8 | 4.4 | 3.9 | 3.5 | 2.8 |
| Ferrous metallurgy | | | | | | 0.1 | 0.4 | 1.0 |
| Chemical industry | 0.5 | 0.8 | 1.3 | 0.8 | 0.9 | 2.0 | 2.5 | 3.3 |
| Machines and metal treatment | 5.9 | 6.6 | 11.6 | 8.1 | 10.5 | 13.9 | 17.3 | 20.9 |
| Wood processing and paper industry | 5 | 4.2 | 2.8 | 3.5 | 3.4 | 3.2 | 3.5 | 3.5 |

| | | | | | | | | |
|--|------|------|------|------|------|------|------|------|
| Construction materials | 2.4 | 4.9 | 5.0 | 4.6 | 5.1 | 4.4 | 4.2 | 4.1 |
| Food processing and drinks | 65.1 | 59.3 | 58.9 | 54.4 | 49.0 | 43.7 | 39.6 | 33.6 |
| Textile, clothes, leather and footwear | 11.4 | 20.9 | 15.9 | 19.2 | 20.2 | 21.3 | 21.9 | 22.6 |
| Other | 8.1 | 2.0 | 2.6 | 5.6 | 6.5 | 7.5 | 7.1 | 8.2 |

Source: Statistical Office of Moldovan SSR.

Remark: Including Transnistria.

In summary the initial stage of industrialization (till 1960) was characterized by the accelerated development of food and light industry, which composed more than 80 % of gross output. It allowed for free labor resources to be allocated to industrial production and local agricultural raw material was used more productively. Unfortunately the developments during transition will prove that investments in more advanced branches of industry that took place in the 70s and the 80s were not well targeted and did not suit the underlying comparative advantage of the country. As a result their production stopped almost completely after the collapse of USSR.

Table 5. Distribution of labor force in Moldova, percentage of total.

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|-------------|------|------|------|------|------|------|------|
| Industry | 16.7 | 19.2 | 22.8 | 25 | 26.6 | 27.9 | 29.9 |
| Agriculture | 65.1 | 57.4 | 50.1 | 44.3 | 39.6 | 36.4 | 33.5 |
| Other | 18.2 | 23.4 | 27.1 | 30.7 | 33.8 | 35.7 | 36.6 |

Source: Statistical Office of Moldovan SSR.

Remark: Including Transnistria.

As a result of industrialization and mechanization of agriculture the share of the population engaged in the latter sector decreased from 65,1 % in 1960 down to 33,5 % in 1990 and the share engaged in industry and services increased from 16,7% up to 29,9 % and from 18,2% up to 36,6 %, respectively. The branch structure of labor force also has come nearer to structure characteristic for USSR

Table 6. Distribution of labor force in USSR, percentage of total.

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|-------------|------|------|------|------|------|------|------|
| Industry | na | 36 | 38 | 38 | 39 | 39 | 35 |
| Agriculture | na | 31 | 25 | 23 | 20 | 20 | 20 |
| Other | na | 33 | 37 | 39 | 41 | 41 | 45 |

Source: Main Statistical Office of USSR.

During 1960-1990 Moldova was still inside of group of most rapidly developing republics by economic growth rates and considerably outstripped average USSR parameters. However much of this effect was achieved in the beginning of the 60s and the growth rates diminished in the 70s and the 80s.

Table 7. Moldova and USSR: Comparative indicators of economic growth.

| | 1961-1965 | 1966-1970 | 1971-1975 | 1976-1980 | 1981-1985 | 1986-1990 | 1961-1990 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gross production | | | | | | | |
| USSR | 136 | 142 | 132 | 123 | 117.6 | 109 | 402 |
| Moldova | 162 | 142 | 143 | 124 | 121 | 113 | 558 |
| Ratio, (USSR=1) | 1.19 | 1.00 | 1.08 | 1.01 | 1.03 | 1.04 | 1.39 |
| National income | | | | | | | |

| | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|------|
| USSR | 136 | 145 | 131 | 124 | 117 | 106.8 | 400 |
| Moldova | 162 | 138 | 126 | 126 | 115 | 113 | 461 |
| Ratio, (USSR=1) | 1.19 | 0.95 | 0.96 | 1.02 | 0.98 | 1.06 | 1.15 |
| National income per capita | | | | | | | |
| USSR | 123 | 138 | 125 | 119 | 112 | 102 | 288 |
| Moldova | 146 | 127 | 118 | 122 | 109 | 115 | 335 |
| Ratio, (USSR=1) | 1.19 | 0.92 | 0.94 | 1.03 | 0.97 | 1.13 | 1.16 |
| Industry | | | | | | | |
| USSR | 152 | 152 | 142 | 124 | 119 | 113 | 547 |
| Moldova | 177 | 157 | 155 | 132 | 124 | 122 | 860 |
| Ratio, (USSR=1) | 1.16 | 1.03 | 1.09 | 1.06 | 1.04 | 1.08 | 1.57 |
| Agriculture | | | | | | | |
| USSR | 112 | 122 | 105 | 109 | 105 | 110 | 181 |
| Moldova | 142 | 128 | 122 | 112 | 107 | 105 | 279 |
| Ratio, (USSR=1) | 1.27 | 1.05 | 1.16 | 1.03 | 1.02 | 0.95 | 1.54 |
| Long-term assets | | | | | | | |
| USSR | 156 | 148 | 151 | 142 | 136 | 126 | 848 |
| Moldova | 176 | 171 | 167 | 148 | 132 | 121 | 1188 |
| Ratio, (USSR=1) | 1.13 | 1.16 | 1.11 | 1.04 | 0.97 | 0.96 | 1.40 |
| Number of employees | | | | | | | |
| USSR | 103.0 | 104.3 | 104.8 | 106.0 | 102.6 | 98.9 | 121 |
| Moldova | 100.6 | 110.4 | 104.1 | 101.6 | 100.9 | 97.4 | 116 |
| Ratio, (USSR=1) | 0.98 | 1.06 | 0.99 | 0.96 | 0.98 | 0.99 | 0.95 |
| Productivity of labor | | | | | | | |
| USSR | 132 | 139 | 125 | 117 | 114 | 108 | 330 |
| Moldova | 161 | 125 | 121 | 124 | 114 | 116 | 399 |
| Ratio, (USSR=1) | 1.22 | 0.90 | 0.97 | 1.06 | 1.00 | 1.07 | 1.21 |
| Productivity of long-term assets | | | | | | | |
| USSR | 87.2 | 98.0 | 86.8 | 87.3 | 86.0 | 84.8 | 47.2 |
| Moldova | 92.0 | 80.7 | 75.4 | 85.1 | 87.1 | 93.4 | 38.8 |
| Ratio, (USSR=1) | 1.06 | 0.82 | 0.87 | 0.97 | 1.01 | 1.10 | 0.82 |
| Long-term assets/employee | | | | | | | |
| USSR | 151 | 142 | 144 | 134 | 133 | 127 | 700 |
| Moldova | 175 | 155 | 160 | 146 | 131 | 124 | 1029 |
| Ratio, (USSR=1) | 1.16 | 1.09 | 1.11 | 1.09 | 0.99 | 0.97 | 1.47 |

Source: Main Statistical Office of USSR, Statistical Office of Moldovan SSR.

Remark: Beginning of period 100. Including Transnistria.

The dynamism of economic growth was based on production factor accumulation. In the 60s and the 70s tens of thousand of workers (mainly specialists with high education and their families) arrived in Moldova to staff new industrial enterprises. The centralized financial inflows from foreign trade of USSR (mainly from oil dollars) supported investments and in the 80s these inflows equaled around 10 % of the national income of Moldova. However returns on capital investments were constantly falling. There was an obvious necessity to introduce incentives for efficiency. However, profits earned by enterprises were in considerable degree withdrawn, and the remaining part used for increase in workers' income, usually disproportionately to their contribution to achieved results. Profit could not be used for truly productive investments also because of the absence of free market for production means. Managers of enterprises were therefore interested rather in maintaining state plan parameters (achievement that promoted their careers) and not in production efficiency increase. Not casually in socialist economy the basic parameter of production efficiency assessment was the parameter of labor productivity, while TFP was not considered even

in specialized literature. Constant decline in efficiency characteristic for Soviet economy was therefore caused by the absence of adequate management system and administrative control (let alone real competition among enterprises) that was combined with constantly increasing budget redistribution.

Table 8. Share of state budget expenditure in national income.

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|---------|------|------|------|------|------|------|------|
| USSR | | 53 | 54 | 59 | 65 | 68 | 73 |
| Moldova | 24 | 27 | 32 | 37 | 41 | 50 | 52 |

Remark: Including payments from All-Union Fund for Moldova. Including Transnistria.

Source: Main Statistical Office of USSR, Statistical Office of Moldovan SSR.

Consequently, up to 1975 in USSR, and up to 1970 in Moldova the TFP exhibited positive dynamics, during following years – negative¹⁶.

Table 9. Factors of economic growth in Moldova

| Years | Growth for period, % | | | |
|-----------|----------------------|-------------|------------|------|
| | national income | labor force | fix assets | TFP |
| 1961-1965 | 62 | 0.6 | 76.0 | 38.8 |
| 1966-1970 | 38 | 10.4 | 71.0 | 9.4 |
| 1971-1975 | 26 | 4.1 | 67.0 | 3.0 |
| 1976-1980 | 26 | 1.6 | 48.0 | 10.5 |
| 1981-1985 | 15 | 0.9 | 32.0 | 4.8 |
| 1986-1990 | 13 | -2.6 | 21.0 | 8.5 |

Source: Statistical Office of Moldovan SSR.

Remark: Elasticity of changes of national income: labor force-70%, fix assets-30%.. Including Transnistria.

Table 10. Factors of economic growth in USSR

| Years | Growth for period, % | | | |
|-----------|----------------------|-------------|------------|------|
| | national income | labor force | fix assets | TFP |
| 1961-1965 | 36 | 3.0 | 56.0 | 17.1 |
| 1966-1970 | 45 | 4.3 | 48.0 | 27.6 |
| 1971-1975 | 31 | 4.8 | 51.0 | 12.3 |
| 1976-1980 | 24 | 6.0 | 42.0 | 7.2 |
| 1981-1985 | 17 | 2.6 | 36.0 | 4.4 |
| 1986-1990 | 6.8 | -1.1 | 26.0 | -0.2 |

Source: Main Statistical Office of USSR, Statistical Office of Moldovan SSR.

Remark: Elasticity of changes of national income: labor force-70%, fix assets-30%. Including Transnistria.

General economic development during Soviet period in Moldova and financial transfers from the central USSR budget allowed to achieve important improvements in health care, education, dwelling and other social provisions. Since 1965 to 1990 the number of doctors per 10000 habitants increased from 17,9 up to 40, and number of middle-level medical staff - from 65 up to 118,6. For

¹⁶ As an exception, TFP in Moldova comprised 2,1 % between 1986 and 1990 due to the launch of the one of largest metallurgical combines in the Soviet Union at the territory of Transnistria. Currently, export of this enterprise constitute more than half of total export value of breakaway territory..

this period number of hospital beds per 10 000 habitants increased from 89,4 up to 131. Level of secondary (full and uncompleted) education per 1000 person for city increased 1,65 times (with 450 up to 743 person) for village - 2,8 times (with 214 up to 598 person). Level of higher education per 1000 person for city increased 3 times (with 47 up to 141 person) for village - 7,4 times (with 5 up to 37 person). Improvements in comparisons to figures from the beginning of the 50s would be even more stunning. The fast economic growth based on outstripping industrial growth, was accompanied by urbanization of the society. From 1960 to 1990 the share of urban population has increased from 23,2 up to 47,4 % that allowed more effectively develop the human capital. Also the share of working population in total able-bodied age citizens increase significantly from 69,3 % in 1960 to 85,7 % in 1980.

Table 11. Human capital indicators.

| Indicators | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|--|------|------|------|-------|-------|-------|-------|
| <i>I. Health care</i> | | | | | | | |
| Doctors per 10000 habitants | | 17.9 | 20.5 | 26.1 | 31.2 | 36.8 | 40 |
| Middle-level medical staff per 10000 habitants | | 65 | 77.2 | 86 | 94.4 | 107.9 | 118.6 |
| Hospital beds per 10 000 habitants | | 89.4 | 99 | 108.9 | 118.9 | 121.6 | 131.4 |
| Capacity of ambulance station (number of visits in shift per 10000 habitants) | | 78 | 84 | 98 | 117 | 136 | 194 |
| Share of health expenditure in national income, % | 4 | 3.6 | 3.9 | 4.1 | 4.3 | 4.8 | 4.7 |
| <i>II. Education</i> | | | | | | | |
| Number of high school graduated (thou. person) | 3 | 3.6 | 6.9 | 6.9 | 8.3 | 9.1 | 8.2 |
| Number of special secondary school graduated (thou. person) | 4.5 | 5 | 11.8 | 13.4 | 17 | 17 | 15.6 |
| Number of full secondary school (lyceum) graduated (thou. person) | | 13 | 33.6 | 58.8 | 62.9 | 49.7 | 32.3 |
| Number of uncompleted secondary school (gymnasium) graduated (thou. person) | | 70.1 | 74.3 | 85.2 | 66.4 | 64.9 | 69.2 |
| Higher education per 1000 person (15 years old and more) | | | | | | | |
| - city | 47 | | 74 | | 110 | | 141 |
| - village | 5 | | 13 | | 23 | | 37 |
| Secondary (full and uncompleted) education per 1000 person (15 years old and more) | | | | | | | |
| - city | 450 | | 597 | | 694 | | 743 |
| - village | 214 | | 340 | | 493 | | 598 |
| Endowing of child by pre-school education institution (% of total child) | | | 22 | 43 | 61 | 67 | 69 |
| Share of education expenditure in national income, % | 5.4 | 6.7 | 8.3 | 8.7 | 8.5 | 9.6 | 8.6 |
| <i>III. Dwelling</i> | | | | | | | |
| Dwelling (mil. m2) | 36 | 41 | 47 | 54 | 60.8 | 68.1 | 77.9 |
| Provision of dwelling (m2 per habitant) | 12.2 | 12.4 | 13.2 | 14.2 | 15.1 | 16.1 | 17.8 |
| - city | | | | | 12.1 | 12.9 | 14.2 |
| - village | | | | | 17.1 | 18.6 | 21.1 |
| Endowing of state city dwelling, % | | | | | | | |
| - water | | 63 | 78 | 86 | 89 | 94 | 96 |
| - hot water | | 10 | 36 | 51 | 59 | 68 | 71 |
| - sewage | | 58 | 72 | 80 | 88 | 93 | 95 |
| - gas | | 66 | 83 | 91 | 95 | 98 | 98 |
| - heating | | 45 | 60 | 72 | 80 | 85 | 87 |

| | | | | | | | |
|---|------|------|------|------|------|------|------|
| Share of state dwelling expenditure in national income, % | 0.4 | 0.5 | 0.5 | 0.7 | 0.8 | 1.0 | 1.1 |
| I V. Consumer expenditure | | | | | | | |
| Structure of consumer expenditure of households (%) | | | | | | | |
| - food products (incl. alcohol) | 42.0 | 48.5 | 45.5 | 43.7 | 40.9 | 38.7 | 35.9 |
| - non-food products | 58.0 | 51.5 | 54.5 | 56.3 | 59.1 | 61.3 | 64.1 |
| including consumer durable | 10.3 | 11.5 | 13.3 | 16.0 | 20.0 | 19.5 | 20.6 |
| V. Other | | | | | | | |
| Share of working population in total able-bodied age citizens (%) | 69.3 | 75.2 | 80.1 | 84.8 | 85.7 | 84.1 | 82.5 |
| Share of urban population (%) | 23.2 | 28.2 | 31.7 | 36.8 | 40.0 | 44.7 | 47.4 |

Source: UNDP (2000).

Summary

Moldova during Soviet times was developing relatively quickly due to the rapid industrialization and accumulation of factors of production that were supported by transfers of technologies and financial and human resources from the center of Soviet Union. Moldovan economy was also heavily subsidized in the form of distorted trade prices. Economic growth, urbanization allowed for important improvements in human capital. However, the failure to increase the production efficiency and to create qualitative production implied the inevitable crash of the Soviet model of development in the longer run. Efficiency losses resulted from the absence of competition and deformed economic incentives. Specifically, emergence of serial and parallel groups of interest led to the situation in which managers in each enterprise had every incentive to increase input and decrease output by misinforming central planner¹⁷. Accordingly, positive growth rates had to be maintained by non-proportionally high investments, while shrinking profits brought erosion of revenues at the time when the need for subsidies increased. Finally growth and standard of living stagnated stimulating political tensions and quest for new ways of development. Reforming the system proved to be very difficult and Soviet system finally became bankrupt, what also led to its political collapse.

At this moment Moldovan government had to assume responsibility for domestic economic policies for the first time in the history. In turn, Moldovan economy had to become self-sustainable. This new situation was welcome with much enthusiasm. Introduction of market mechanisms (with profit seeking and entrepreneurial spirit, incentives for rationalizations and innovations, development and import of western organization know-how) was expected to bring increase in welfare due to better static allocation of resources and dynamic effects through investments in human and physical capital. Regaining access to new technologies and world stock of capital in combination with relatively high level of human capital in Moldova could also bring new growth stimulus. Unfortunately things did not turn exactly this way. We explain key reasons for that in following sections.

B. Decline in Transition

Introduction of market economy institutions in Moldova coincided with the collapse of traditional trade links and the most negative terms of trade shock in the region as the dependence of the country on old Soviet system proved to be very large. We show below that these effects can explain substantial part of initial economic decline in transition in years 1990-1994, although can not be accounted for prolonged economic decline in the subsequent years.

¹⁷ Olson (2000).

Terms of trade shock

Centrifugal tendencies in former republics of the USSR became especially strong in 1991 and it was increasingly clear that days of the Soviet system are over. Moldova declared its independence in August 1991 among much economic turmoil. Gradual price liberalization across the USSR combined with relaxed monetary policy started to produce high and increasing rates of inflation. Moreover, Moldova is ever since compelled to purchase energy products at world prices¹⁸. Accordingly, energy import prices grew 4,5 times in 1991 with the share of energy products in total imports rising up to 17,1 % (7,3 % in 1989). At the same time, non-competitiveness of Moldovan production on foreign markets (including – traditional ones) in respect to both price and quality started to be evident. As a result export prices of the main food-processing and agriculture products (40-45 % of exports) grew only 3,3 times. Consequent deterioration in terms of trade is shown in the table below. Despite of the declaration of independence, Moldova had no national currency between 1992 and end of 1994 and as a member of a rouble zone had to experience hyperinflation. In this period the terms of trade deteriorated further. Energy prices grew 4350 times with the share of energy products in total import rising up to 42 %. Export prices of main food-processing and agriculture products (50 % of export) grew only 968 times.

Table 12. Main export and import products.

| | Structure 1989 | Price indexes 1990- 1991 | Structure, 1991 | Price indexes 1992- 1994 | Structure 1994 | Price indexes 1995- 1998 | Structure 1998 | Price indexes 1999- 2000 | Structure 2000 |
|---------------------------------------|-------------------|-----------------------------------|--------------------|-----------------------------------|-------------------|-----------------------------------|-------------------|-----------------------------------|-------------------|
| Import of energy products* | | | | | | | | | |
| Gasoline | 16.9% | 4.8 | 23.1% | 1580.5 | 12.8% | 1.42 | 12.8% | 3.57 | 16.1% |
| Diesel oil | 14.0% | 6.4 | 24.7% | 1594.5 | 13.4% | 1.63 | 14.6% | 3.39 | 22.9% |
| Black oil | 16.1% | 5.5 | 19.9% | 2003.5 | 15.2% | 1.59 | 5.9% | 3.77 | 3.5% |
| Gas | 17.1% | 2.1 | 13.8% | 6388.2 | 54.6% | 1.33 | 46.3% | 2.19 | 35.4% |
| Coal | 26.4% | 1.4 | 9.6% | 11151.5 | 0.6% | 1.92 | 0.9% | 1.87 | 1.8% |
| Electricity | 9.5% | 2.6 | 9.0% | 2224.1 | 3.5% | 2.73 | 19.4% | 1.80 | 20.3% |
| Weighted average price | | 4.5 | | 4351.4 | | 1.60 | | 2.66 | |
| Export of main food products** | | | | | | | | | |
| Cereals | 1.5% | 4.2 | 4.4% | 4950.3 | 10.8% | 0.20 | 5.7% | 4.77 | 6.0% |
| Vegetables | 2.4% | 2.5 | 3.3% | 1330.9 | 2.2% | 1.82 | 0.8% | 1.93 | 0.7% |
| Fruits | 10.2% | 2.3 | 2.2% | 818.9 | 9.0% | 1.50 | 2.7% | 2.20 | 1.5% |
| Walnuts | 0.0% | - | 0.0% | - | 1.1% | 1.64 | 4.5% | 2.70 | 7.5% |
| Grapes | 0.7% | 4.3 | 1.1% | 324.1 | 8.7% | 1.75 | 0.4% | 2.07 | 0.7% |
| Vegetable cannery | 5.5% | 5.6 | 11.3% | 492.6 | 6.1% | 2.47 | 4.5% | 1.40 | 4.9% |
| Fruit cannery, juice | 8.9% | 3.0 | 18.5% | 266.5 | 9.8% | 2.17 | 13.1% | 1.73 | 8.0% |
| Sunflower oil | 4.0% | 1.9 | 4.2% | 1170.6 | 3.0% | 1.92 | 0.9% | 1.21 | 1.3% |
| Sugar | 4.7% | 3.4 | 0.8% | 571.8 | 11.1% | 1.41 | 6.9% | 2.10 | 0.6% |
| Vine | 8.3% | 1.4 | 12.7% | 348.4 | 16.1% | 5.19 | 43.9% | 1.30 | 37.2% |
| Cognac | 13.8% | 1.3 | 5.0% | 737.7 | 6.0% | 2.18 | 2.8% | 1.47 | 5.4% |
| Champaign | 1.8% | 2.4 | 1.1% | 139.1 | 4.7% | 3.57 | 2.4% | 2.19 | 1.5% |
| Vine materials | 18.2% | 4.2 | 15.2% | 211.9 | 1.2% | 3.02 | 3.1% | 2.05 | 10.9% |
| Tobacco | 16.5% | 2.9 | 12.6% | 229.8 | 4.9% | 2.91 | 6.7% | 1.80 | 12.7% |
| Cigarettes | 2.1% | 4.7 | 6.7% | 277.3 | 3.5% | 1.67 | 0.9% | 2.48 | 0.6% |
| Sweets | 1.2% | 1.7 | 1.0% | 1450.7 | 1.6% | 1.55 | 0.6% | 1.80 | 0.5% |
| Weighted average price | | 3.3 | | 968.3 | | 3.40 | | 1.85 | |
| Memo: cumulative | | 2.2 | | 911.2 | | 1.94 | | 1.83 | |

¹⁸ In practice prices are sometimes lower in exchange for political and economic concessions.

| | |
|------------------|--|
| inflation | |
|------------------|--|

Source: own calculation, data from Department of Statistics of Moldova and Custom Department of Moldova.

In the same period (1990-1994) cumulative GDP fall in Moldova reached 60 % in comparison to the 1989 level. As we show in table below large part of this fall can be explained by the negative windfall profit (loss) from the terms of trade shock¹⁹. Windfall profit represents the value added, which is redistributed free-of-charge for the national economy benefit (paid by national economy). Its positive size means, that the world prices for Moldovan export which have increased in comparison with the previous year (or the world prices for Moldovan import which have decreased) give the price subsidy for local economic agents which actually has been not connected to their own efforts. Negative size of windfall profit means, that reduction of the world prices for Moldovan export (increase of the world prices for Moldovan import) compels of economic agents to pay the appropriate price subsidy to foreign partners²⁰. It is evident that in first years of transition the windfall loss was really huge in Moldova and contributed to large share of output loss.

Table 13. Impact of terms of trade on GDP.

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|--------|--------|--------|--------|-------|-------|-------|-------|--------|-------|
| External trade volume (mil. lei) | | | | | | | | | | |
| Export | 8.4 | 65 | 701.9 | 2318.5 | 3318 | 3786 | 4105 | 3475 | 4937 | 5968 |
| Import | 8.1 | 92.9 | 909.2 | 2733.9 | 3565 | 4945 | 5710 | 5571 | 6283 | 9823 |
| Price index | | | | | | | | | | |
| Export | 2.25 | 5.82 | 5.82 | 5.82 | 1.38 | 1.26 | 1.11 | 1.2 | 1.25 | 1.16 |
| Import | 3.16 | 10.43 | 10.43 | 10.43 | 1.12 | 1.12 | 1.01 | 1.08 | 1.55 | 1.26 |
| Income from terms of trade (mil. lei) | | | | | | | | | | |
| Export | 4.7 | 53.8 | 581 | 1920 | 914 | 781 | 407 | 579 | 987 | 823 |
| Import | -5.5 | -84.0 | -822 | -2472 | -382 | -530 | -57 | -413 | -2229 | -2027 |
| Windfall profit (mil. lei) | -0.87 | -30.2 | -241 | -552 | 532 | 251 | 350 | 167 | -1242 | -1204 |
| Windfall profit (mil. USD) | | | -132 | -136 | 118 | 54 | 76 | 31 | -118 | -97 |
| Windfall profit as % of GDP | -3.4% | -15.7% | -13.2% | -11.6% | 8.2% | 3.3% | 3.9% | 1.8% | -10.1% | -7.5% |
| GDP (mil. lei) | 25.9 | 191.9 | 1821 | 4737 | 6480 | 7658 | 8917 | 9122 | 12322 | 15980 |
| GDP growth | -17.5% | -29.1% | -1.2% | -30.9% | -1.4% | -5.9% | 1.6% | -6.5% | -3.4% | 1.9% |
| GDP growth adjusted on windfall profit | -14.1% | -13.4% | 12.0% | -19.3% | -9.6% | -9.2% | -2.3% | -8.3% | 6.7% | 9.4% |

Source: own calculation, data from Department of Statistics of Moldova and Custom Department of Moldova.

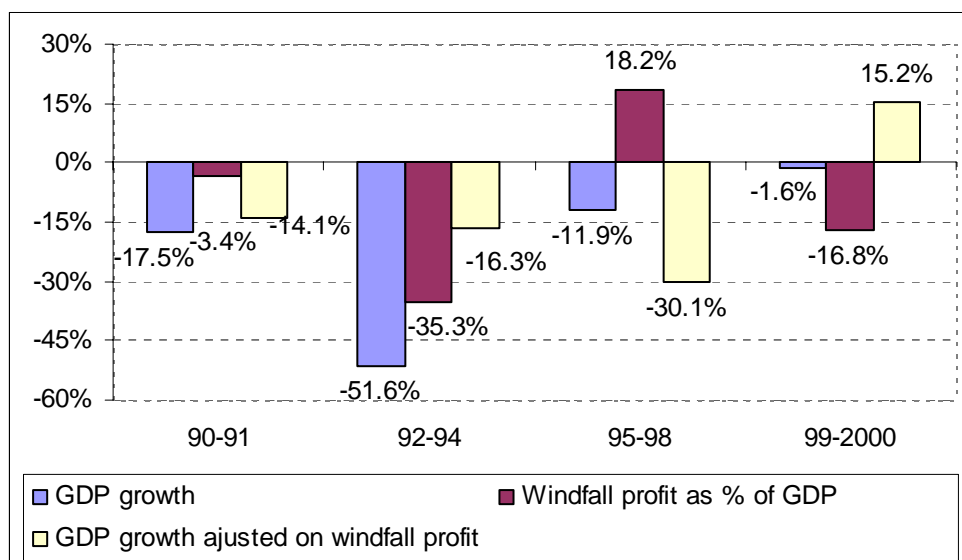
The strong negative impact of terms of trade shock on GDP was however partly reversed between 1995 and 1998, when Moldova maintained stable national currency and low inflation. During this period the average import prices grew 1.4 times, including energy products – 1.6 times, the share of these products in import was reduced up to 28.8 %. At the same time the average export prices grew 2.3 times, including main food-processing and agriculture products - 3.4 times. Unfortunately, the Moldovan authorities did not create conditions for deep restructuring of the economy and for attraction of domestic and foreign investments that would allow to take advantage of this improvement. The favorable situation proved however only temporal. Demand in Russian market was reduced as a result of regional financial crisis in 1998, that caused significant reduction of the Moldovan export. In 1999 the export volume was almost twice lower than in 1997. Demand in the European markets was more stable, therefore a share of non-CIS countries in total export increased

¹⁹ Lack of statistical data did not allow carrying out terms of trade calculations for all products. Price changes of the main products of import (energy) and export (agriculture and food-processing products) for 1991-1994, 1999 and 2000 are therefore assumed as a basis for terms of trade calculations. The foreign trade statistics and data from natural-value input-output tables were used in the calculations.

²⁰ Illarionov (2001).

from 30 % to 46 % in 1999. However the Moldovan producers were generally non-competitive in the these markets and consequently failed to make up for the loss of traditional ones. The external economic situation again put constraint on economic growth in Moldova: the import prices of energy products grew 2.66 time while the export prices of main food-processing and agriculture products grew only at 1.85 time.

Figure 19. GDP growth and impact of changes in terms of trade.



Source: own calculation, data from Department of Statistics of Moldova and Custom Department of Moldova

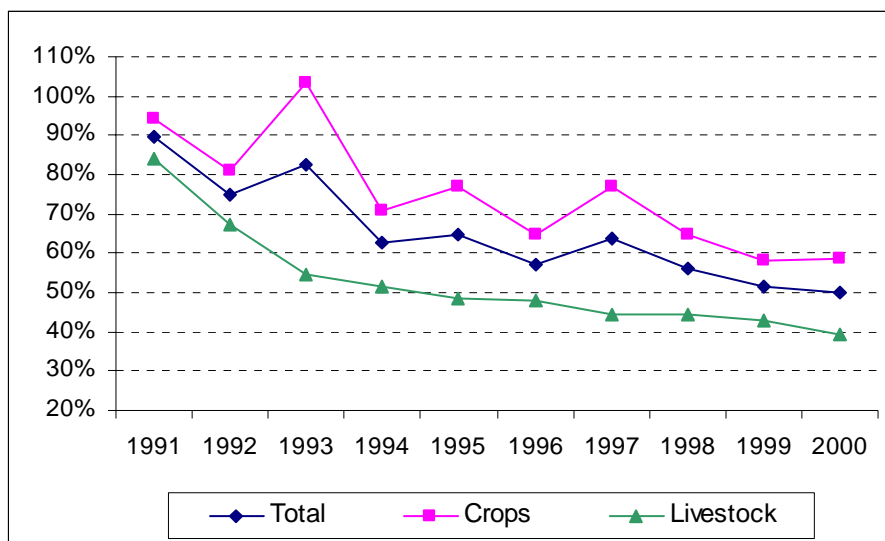
Terms of trade impact caused at least half of GDP fall in Moldova between 1990 and 2000. However this negative impact was important mainly in first years of transformation. Later on between 1995 and 1998, terms of trade change actually promoted economic growth. We therefore need to find another explanations for prolonged recession in Moldova.

Crisis in agriculture sector

Agriculture is the most important sector of Moldova's economy that together with food processing industry generates 33% of GDP, 44% of employment and 61% of exports (data for 2000). Growth in agriculture is therefore a necessary condition for the country general economic developments. Yet Moldova's agricultural sector performed very poorly since independence: production and exports of the sector declined by more than 50% during the transition period. Tax revenues from agriculture sector constitute currently only 10% of total tax revenues, but 50% of tax arrears, what reflects its persistent bad financial situation. Most of the decline in production is the result of falling land and labor productivity rather than the decrease in total arable area or employment in the sector. As a result of disorganization the crucial irrigation system is now largely malfunctioning what greatly amplified the impact of droughts that occurred in 1992, 1994, 1996 and 2000²¹. There are several reasons for these negative tendencies: terms of trade shock following collapse of former Soviet Union, reduction of subsidization of the sector and fall in living standard of population of Moldova. Slow pace of real reforms contributed to these difficulties by discouraging adjustments to the new, more difficult market environment.

Figure 20. Agricultural Output (1990=100%).

²¹ Share of irrigated land decreased from 49% in 1995 to 4% in 2000.



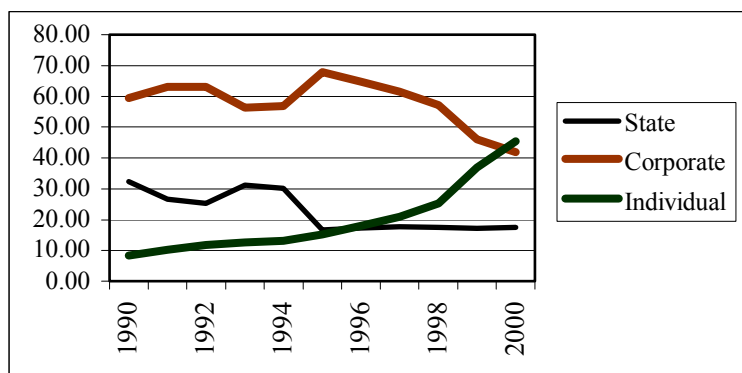
Source: ARA (2001b).

Much of production contraction in agriculture can be explained by the extreme terms of trade shock following independence (as described in the previous section) and sharp reduction in subsidization. During Soviet times farm products were procured by the state at prices much higher than world prices while inputs (fertilizers, pesticides and fuel) were provided to state and collective farms at a fraction of the world prices. Annual direct subsidies for agriculture composed about 9.5% of gross national income (GNI) before 1990, and indirect subsidies (due to low energy product prices and high agricultural product prices) – about 4.5% of GNI. In transition period total subsidization of agriculture declined sharply down to 3.3% of GDP in 1998²², burden still too heavy for the country government budget. The external demand also contributed to the decline significantly. The most severe shock was obviously brought by the collapse of the former Soviet Union and old trade links, but more recent financial crisis in Russia in 1998 led to the further sharp decrease in demand for food exports exposing heavy dependence of Moldovan agriculture to the Russian market. The domestic demand for primary and processed agricultural products was also declining due to the contracting disposable income of the population. Although the share of agricultural products in overall household consumption increased from 28% in 1990 to 65% in 1999, per capita annual consumption of the main food products declined to about half of its 1990 level.

This difficult situation required rapid and elastic adjustments. Those could not take place within existing state-dominated structures. However the reform of agriculture was extremely slow. After a promising start in 1991, key reforms were basically suspended between 1991 and 1996, mainly as the result of the continuous struggle between pro-reform and conservative forces in the sector. After the first stage of ownership changes, agriculture was legally speaking private but the state farms continued to exist in the form of joint stock companies and this change did not bring any real economic gains. The pace of reform accelerated somehow after 1996 when the decision of Constitutional court recognized some restrictive provision of Land Code as unconstitutional. This allowed for full restructuring of 30 large-scale farms before 1998. However, the significant progress in large-scale collective farm break-up and privatization, and in agricultural land reform was made only during 1998-2000.

Figure 21. Structure of land ownership.

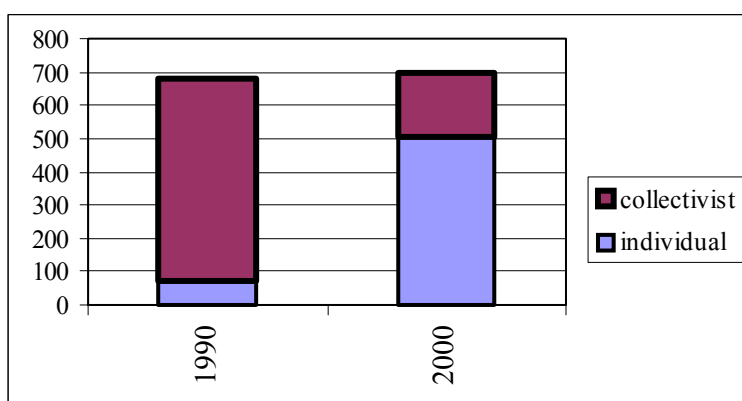
²² ASA (1998).



Source: ARA (2001b).

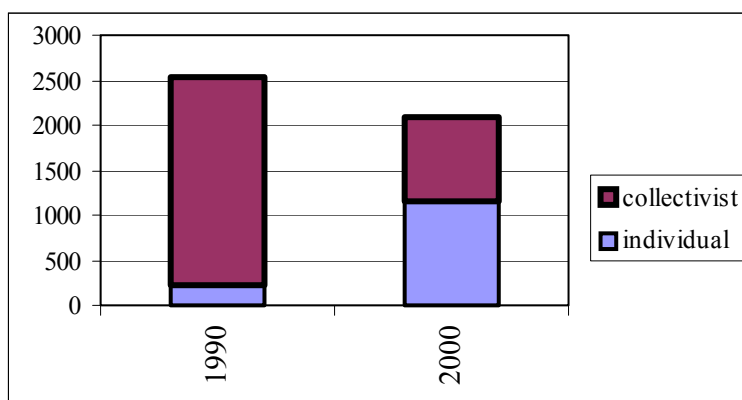
Due to the acceleration after 1998 out of 1034 large-scale agricultural enterprises that participated in the National Land Program, 854 were liquidated (96% of total number and 75% of the agricultural land) by the end of 2000 and new debt-free entities were created, such as peasant farms, individual enterprises, limited liability companies and other types of enterprises. As a result 54% of total number of eligible individuals received land before October 2001 and individual sector (peasant farms and households) owns nearly half of country's agricultural land, while the collectivist sector is gradually losing its traditional dominance. This is undoubtedly the largest achievement of structural reforms in Moldova in recent years. For the first time since the II World War, farmers can themselves make decisions about the most optimal usage of land, capital and labour.

Figure 22. Employment in agriculture by ownership, thousands.



Source: ARA (2001b).

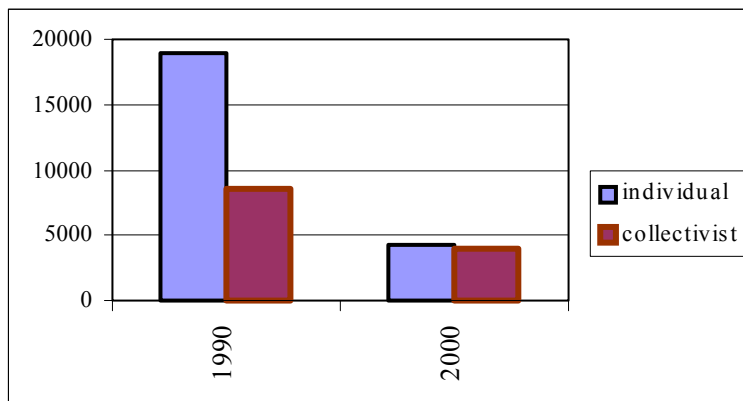
Figure 23. Arable land in by ownership, thousands of hectares.



Source: ARA (2001b).

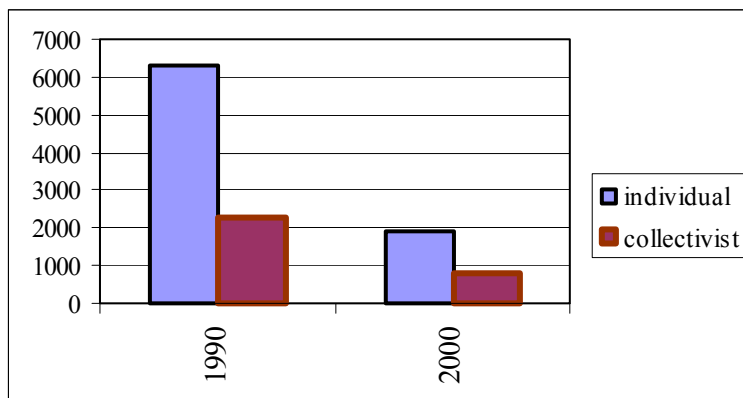
Unfortunately, the gradual individualization of agriculture did not lead to the increase in sector productivity²³. In 2000 the land and labor productivity in the individual agricultural sector constitutes only 30% and 25% of the 1990 level, respectively. The productivity in the individual sector remains still higher than in the collective sector: in 2000 the labor productivity was by 9% higher, while the land productivity in individual possession was twice as high as in the collective sector.

Figure 24. Land productivity, lei constant prices



Source: ARA (2001b).

Figure 25. Land productivity, lei constant prices



Source: ARA (2001b).

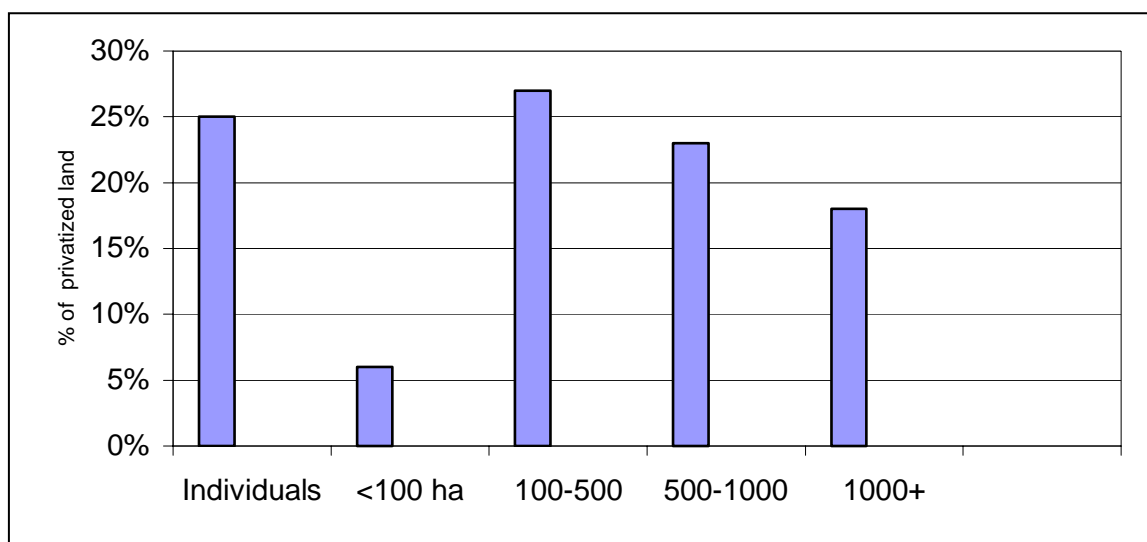
Financial results of small and medium farms bring more optimism. According to results of a Farm Survey small-medium farms are more efficient than large ones²⁴. Both gross output and the net value (gross output minus production costs) calculated per ha registered by small and medium farms are significantly higher than those of large individual and corporate farms. Only 8-9% of small and medium farms has negative value, while it is reported by every third large individual and every fourth corporate farm. Another important indicator, which highlights the efficiency of small and medium farms, is sales per hectare. The highest sales per hectare are registered by medium individual farms (over 3000 lei/ha), followed by small farms (2500 lei/ha), while the lowest – by large individual farms (about 1200 lei) and corporate farms (1700 lei). The net profit per ha of small

²³ Unfortunately no comparable data on TFP in agriculture are available for this period. It is also very probable that new private owners did not have enough time yet to truly restructure production on received plots.

²⁴ The survey was carried out by the Agency for Restructuring Agriculture (ARA) in 80 rural communities in all counties of Moldova during October-November 2000 and covered 350 agricultural enterprises of all organizational forms. See ARA (2001a).

and medium individual farms is about three times higher than the one of corporate farms. Micro evidence shows therefore that the real land privatisation does work although its results are not yet clearly seen at the aggregate level. We conclude that the importance of the real owner who considers various possibilities of land use and chooses the most profitable ones is far more important than theoretical efficiency considerations about the optimal size of the plot²⁵. Land consolidation proved to be natural development during post-privatisation period anyway. So far, farms greater than 100 hectares have been formed on over 69 % of all land distributed in the National Land Program, and farms having from 500 to 1000 hectares – 23% of land, and more than 1000 ha – 18% of land. Consolidation is proceeding mainly through lease agreements concluded on total land area of 700 thousand hectares in 2000. It is very important, that farmers choose leaders on a voluntary and individual basis with the sole purpose of increase of agricultural production efficiency and are not forced for new collectivist structures. Unlike during the soviet era, when the land was polarized between large collective structures with over 1000 ha and small household plots, at present there is a variety of organizational forms that own between 100-1000 ha, that did not exist previously.

Figure 26. Agricultural land controlled by leaders: September 2000.



Source: ARA (2001).

In spite of recent progress in land reform implementation, major impediments to growth in the sector prevail. Agriculture in Moldova today has the subsistence character as it basically keeps the rural population alive rather than supply the market: individual farmers sell only from 15% to 37% of their output. This tendency is also reflected in the change in the structure of production away from market oriented and input intensive vineyards and orchards towards staple crops grown mainly for own needs and with minimal input requirements. Only between 1995 and 1999 chemical and natural fertilizers consumption declined 4 and 12 times, respectively.

There are several institutional barriers to market oriented growth of production of new private farms. The financial resources for investment are largely unavailable as better access to banking and credit is determined by the final settlement of ownership issues and functioning land market - with land titles serving as the only collateral available to farmers. However the land market in Moldova has not started to work yet due to the still non-operational national cadastre system (although the

²⁵ Privatization of land was often opposed on the grounds that it may create plots of sub-optimal size, therefore leading to further efficiency losses in agriculture. Initial policy of transforming kolkhozes into joint stock companies was motivated by such considerations and failed to bring a real change to the sector.

work on it is very advanced now). The transparency of prices in the sector is another fundamental requirement for revival of agriculture. Farmers should know price structures of inputs and outputs, so that they can assess expected profitability of production. Only such assessment allows for good production planning (formulation of business plans) and therefore crediting from commercial banks and eventually financially viable growth of output. The importance of agricultural commodities cannot be overestimated. Commodities set the price based on demand and supply. The advantage of well-functioning exchanges is transparency in market prices of agricultural products, non-constrained access to information published in newspapers, and the establishment of standards in quality of commodities, deliveries, payments, etc. Commodity exchanges also give a basis for the development of financial instruments, like future contracts (that guarantee a farmer a fixed price at which his product will be purchased in the future) that may further strengthen the willingness of banks to lend to the sector. Although the usual practice is the spontaneous establishment of agricultural commodities by buyers and sellers, the state and local authorities participated in establishment of fully independent commodity exchanges in many transition economies, which might also be recommended for Moldova²⁶.

The development of market institutions in agriculture, including commodities and wholesale centres, the insurance system and financial services has therefore hardly begun. However, a three-year post-privatisation program was launched on January 1, 2001 with the aim to support and develop mortgage crediting, offer juridical consultations, create about 72 agricultural shops and centres to serve farmers. The results of the program are however still difficult to predict as vested interest groups still oppose the free trade of land as well as transparent and liberalised trade in agriculture products.

Restructuring and decline in industry

The large decline in the output might be also expected to be partly explained by changes in the structure of Moldovan economy that were necessary due to previous Soviet model of development.

Table 14. Structure of Moldova's global product by sectors, current prices.

| | 1990 | 1991 | 1992 | 1993 | 1994 |
|-------------|------|------|------|------|------|
| Agriculture | 27 | 26.6 | 26 | 26 | 25.1 |
| Industry | 55.7 | 58.6 | 57.9 | 57.3 | 57.7 |
| Services | 17.3 | 14.8 | 16.1 | 16.7 | 17.2 |
| Total | 100 | 100 | 100 | 100 | 100 |

Source: Department of Statistics of Moldova.

Table 15. Structure of Moldova's GDP, current prices.

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|-----------------------|------|------|------|------|------|------|
| Agriculture | 29% | 27% | 26% | 26% | 25% | 25% |
| Industry | 25% | 23% | 20% | 17% | 17% | 18% |
| Construction | 4% | 4% | 5% | 3% | 3% | 3% |
| Services | 31% | 33% | 35% | 39% | 44% | 43% |
| Net taxes on products | 11% | 12% | 14% | 15% | 11% | 12% |
| GDP | 100% | 100% | 100% | 100% | 100% | 100% |

Source: Own calculations, Department of Statistics of Moldova.

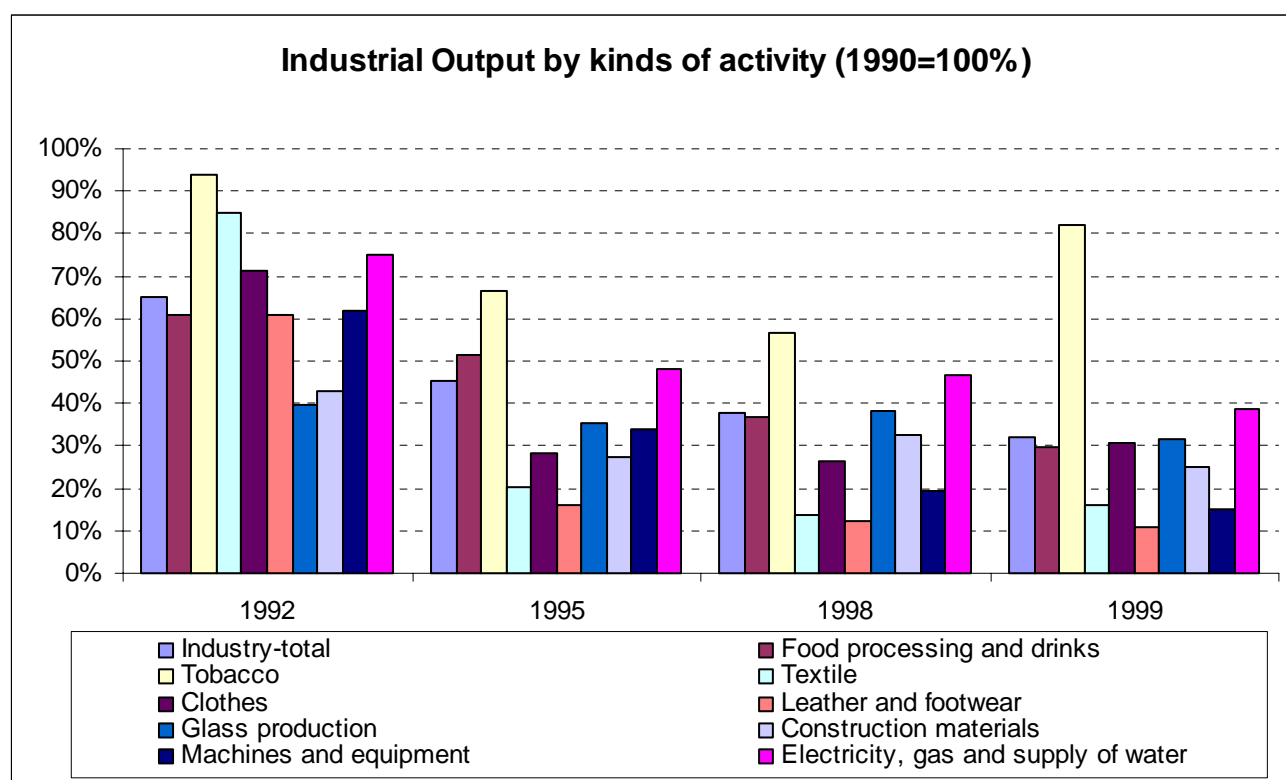
²⁶ See: Antczak (1999) for discussion.

Table 16. Structure of Moldova's GDP, constant prices.

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|-----------------------|------|------|------|------|------|------|
| Agriculture | 24% | 23% | 25% | 25% | 25% | 24% |
| Industry | 21% | 22% | 19% | 17% | 17% | 17% |
| Construction | 4% | 4% | 3% | 3% | 3% | 3% |
| Services | 35% | 37% | 37% | 40% | 44% | 44% |
| Net taxes on products | 16% | 15% | 15% | 15% | 11% | 12% |
| GDP | 100% | 100% | 100% | 100% | 100% | 100% |

Source: Own calculations, Department of Statistics of Moldova.

Heavy industrialization, especially in the 60s and 70s did not correspond to underlying comparative advantage of the country. After declaration of independence Moldovan instrument making, electronics and machinery industries lost the market immediately. The capital at enterprises was however highly specialized (mainly for orders from the military complex) and only intensive restructuring could allow them to survive. The unwillingness of the Moldovan authorities to privatize or force managers to perform resulted in complete bankruptcy of these enterprises by 1996-1997. Initial policy of enterprise subsidization only delayed the dis-industrialization and increased its economic costs. Not only industrial output shrank by more two thirds during the period of transition, but also its structure changed significantly. Within industry the energy achieved much higher prominence, mainly due to the introduction of the world energy prices. Energy intensive and non-efficient machine and machine treatment industry was dwarfed during the transition process. Similarly, textile, clothes, leather and footwear registered deep declines. Food, tobacco and drinks industry maintained its leading position, what is well justified by natural Moldovan endowments. It must be kept in mind however that constant share in output still implies dramatic fall in production: actually there is no a single industrial branch that recorded average positive growth during the transition period.

Figure 27. Industrial output by branches (1990=100%).

Source: Own calculations, Department of Statistics of Moldova.

These changes in the structure of economy as well as the role that state played in economic life were also reflected in the decline and changed structure of investments. Those were falling especially sharply in agriculture that was heavily subsidized from the state budget and in machines and metal treatment industry, while decline was more moderate in transport and telecommunications, food and tobacco and energy related industries.

Table 17. Structure of investments in Moldova, current prices.

| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--------------------------------------|------|------|------|------|------|------|------|------|
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Agriculture | 19.5 | 15.8 | 12.6 | 11.1 | 10 | 10 | 6 | 3.6 |
| Transport and telecommunication | 6 | 8 | 7.5 | 10 | 13 | 11 | 15 | 25.6 |
| Industry-total | 19.0 | 20.0 | 16.2 | 19.1 | 27.6 | 30.4 | 26.1 | 20.8 |
| food processing, tobacco and drinks | 8.2 | 8.7 | 8.9 | 14.2 | 22.5 | 18.9 | 16.9 | 11.5 |
| machines and metal treatment | 2.5 | 2.6 | 1.0 | 0.6 | 0.6 | 0.6 | 0.4 | 0 |
| other industries | 8.3 | 8.7 | 6.3 | 4.3 | 4.5 | 10.9 | 8.8 | 9.3 |
| Electricity, gas and supply of water | 2.0 | 3.0 | 10.0 | 11.0 | 13.0 | 12.0 | 10.0 | 17.4 |
| Other | 53.5 | 53.2 | 53.7 | 48.8 | 36.4 | 36.6 | 42.9 | 32.6 |

Source: Department of Statistics of Moldova.

Changes in the structure of employment were less pronounced, what reflects the rigidity and inertia in functioning of labor markets.

Table 18. Moldova's labor force distribution, percentage of total.

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|-------------|------|------|------|------|------|------|------|
| Industry | 14.5 | 13.8 | 11.9 | 11.7 | 11.6 | 11 | 10.7 |
| Agriculture | 43.2 | 45.6 | 46.1 | 42.8 | 41.5 | 45.6 | 48.8 |
| Other | 42.3 | 40.6 | 42 | 45.5 | 46.9 | 43.4 | 40.5 |

Source: Department of Statistics of Moldova.

The decline in industrial output coincided with crisis in agriculture. The development of new and restructured enterprises in services (sector seriously underdeveloped in Soviet economy) and industry could have offset these negative tendencies at least partly. However this positive effect was extremely weak even in the later years of transition. We argue that this disappointed growth of the new sector should be attributed to the institutional barriers that we discuss in next sections of this paper

Barriers to growth of new enterprises

While the initial decline of GDP in Moldova was related mainly to disintegration of Soviet economic system, very negative changes in the terms of trade and related changes in the structure of economy the prolonged decline is subject to many controversies. Sometimes it is argued that promoting more domestic demand for Moldovan products is necessary for stimulating the growth of production, either through the increase in incomes or through import substitution. Sometimes the lack of profitability of Moldovan firms and an excessive tax burden are underlined. Finally, market allocations are described as inefficient and not allowing for investments in the most productive sectors. The analysis of the economic developments in Moldova before the 1998 crisis allows for an

assessment of some of these claims. High domestic demand before 1998 resulted in a growing trade deficit rather than the increase in production, subsidies and lax fiscal policy contributed to the lack of restructuring while attempts to encourage investments through state credit guarantees inevitably led to failures of the supported projects and accumulation of bad debts. Finally, a very significant depreciation of the currency after the Russian crisis did not lead to any significant export growth or major import substitution. On contrary, it is argued here that the fundamental weakness of the economic reforms in Moldova was the failure to create a economic situation in which the supply side responds to market demand. This is essential as there is a substantial potential demand for Moldovan products. Most importantly there are very large export possibilities and the country could and should have developed rapidly its export sector, while building on its well-known comparative advantage (cheap and qualified labour, fertile soils, climate). Because of the small size of the Moldovan economy in comparison to international (and also national) markets, such expansion would not require the acquisition of large market shares. Yet, there are barely any signs of such an expansion. Although export orientation is far more promising, Moldovan producers should also serve domestic markets more effectively. Still, at the present moment domestic markets are highly penetrated by foreign products even in sectors in which Moldovan producers should specialize (labour intensive agriculture, food and beverages, light industry). This is not caused by the liberal external trade regime, but by the lack of quality domestic substitutes of foreign goods.

What is therefore absolutely necessary for seizing demand opportunities and bringing economic growth, both in respect to exports and domestic sales, are changes in production patterns and quality adjustments. Producers should simply respond to consumer demand and not be driven by inertia or government influences. Therefore our analysis is focused on the barriers of growth of supply side of the economy. Wrong microeconomic incentives, resulting from neglecting structural reforms, proliferation of non-payment culture and corruption, contributed to the slow pace of enterprise restructuring, lack of market orientation, scarcity of new market entries, low level of investments and waste of resources in non-productive or even value-detracting activities. In this situation, sustainable growth simply could not take place. Accordingly, creating a situation in which producers are willing and able to respond to the market demand through relevant changes in production patterns is the most important task for the government. There are few key directions in this effort. Firstly, it is essential to promote profit orientation of enterprises. This means that economic agents should be reacting to price changes both in internal and international markets. Price changes should in turn signal changing market demand, including changes in preferences towards quality and increasing importance of marketing and advertisements. Secondly, distortion-induced attractiveness of non-productive and value detracting activities should be diminished. Instead, as a result of the search for business opportunities under a proper legal framework, resources should be channelled to the most productive uses. Thirdly, adjustments in production patterns would not be possible without growth of factors of production. This requires an increase in investments in physical and human capital and the development of infrastructure. However, the most crucial factor that affects all others is the creation of a stable and credible system that allows confidence of domestic citizens and foreign investors.

Disincentives for profit orientation

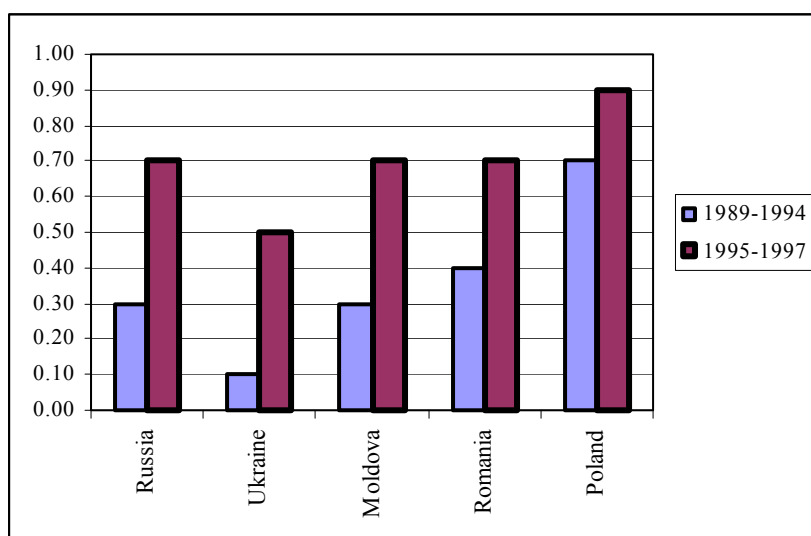
The basic requirement for promoting profit orientation is the improvement in corporate governance. This in turn should be achieved foremost through increasing the share of private sector and less state involvement in current economic life. Cash privatisation of state enterprises should be accordingly pushed forward in order to create real owners and reduce the power of insiders. Such privatisation is especially important for the development of “strategic” industries. Enterprises that still remain in state hands should face a hard-budget constraint, which is necessary for profit orientation and restructuring. Loss-making ones, that fail to restructure, should be accordingly bankrupted. Correction of failures of voucher privatisation are necessary, the key issue is to provide

for better control by shareholders and creditors over management. The latter is currently too often profiting from asset stripping and transfer pricing rather than from achieving good economic results. As small and medium enterprises (and individual farms) tend to be the most responsive to market demand, the most suitable in potentially high-growth sectors (services, food and light industry, specialized labour intensive agriculture) and able to create the largest number of new jobs without large investments, their growth should be a priority. It should be supported through the more favourable regulation (especially simplification of registering procedures and elimination of excessive licensing), better and more stable legal protection and administration services focusing less on controlling economic activity and more on providing a stable framework, which will facilitate the growth and development of the private sector. The second requirement for effective profit orientation is the strengthening of the price signal and is strongly linked to a better organization of markets. The most important solutions here include the promotion of wholesale trade, commodity exchanges and further struggle against barter, in-kind operations and arrears that diminish price transparency. Another issue involves elimination of internal and external barriers to trade and especially elimination of regional market segmentation. The role of the state in providing the proper market and transport infrastructure is especially important here.

Liberalization without privatisation and restructuring

Looking at the progress of liberalization reforms, Moldova generally kept the same pace as Russia and in the second stage of reforms received results similar to those of Romania (although cumulative index of liberalization is lower in Moldova). This places Moldova above Ukraine and at par with Romania and Russia and significantly below Poland.

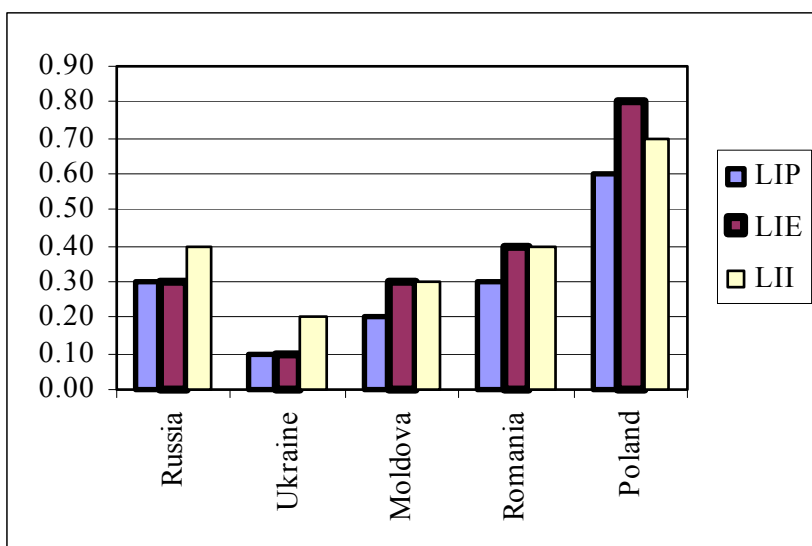
Figure 28. Cumulative liberalization index.



Source: Fischer and Sahay (2000).

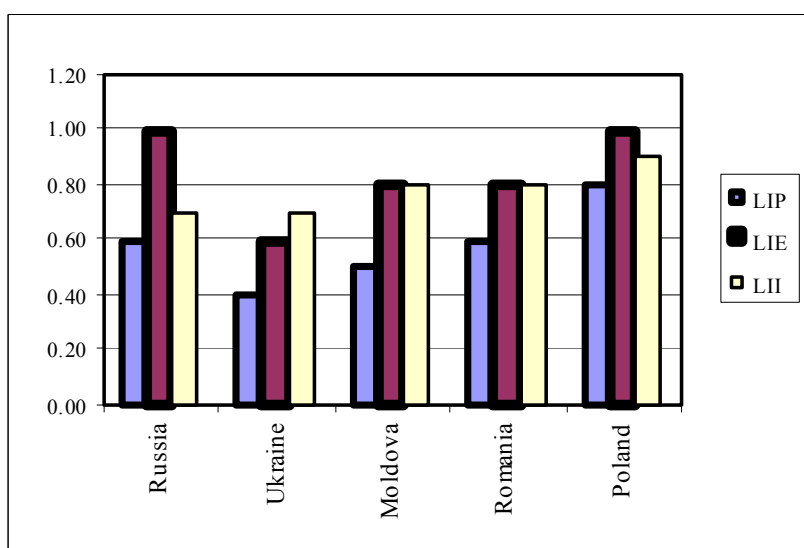
However, it should be noted that while the index of internal and external liberalization caught up in the second stage of reforms with the level characteristic for Romania (but still remained below Polish level), the index of private sector conditions was lagging behind.

Figure 29.. Progress in private sector conditions (LIP), internal liberalizations (LII) and external liberalizations (LIE), 1989 –1994.



Source: Fischer and Sahay (2000).

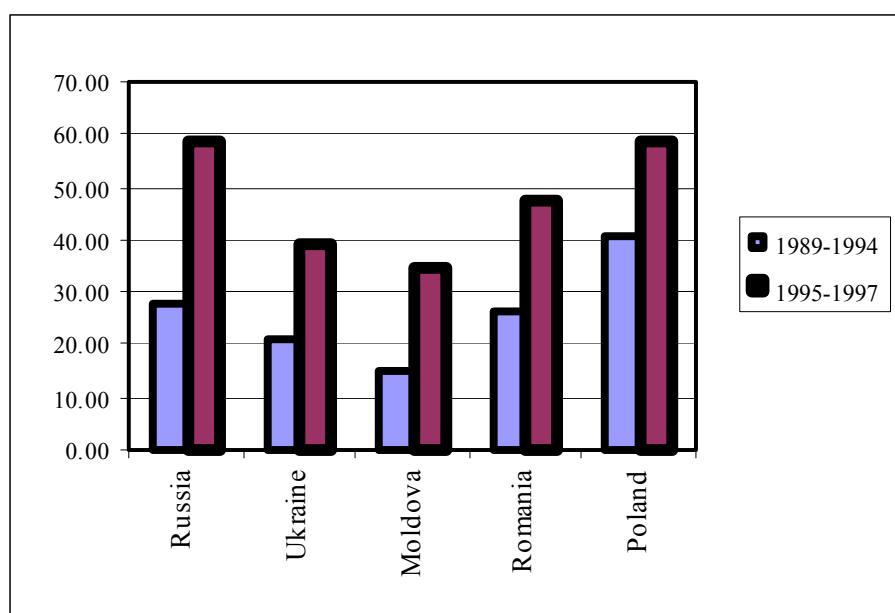
Figure 30. Progress in private sector conditions (LIP), internal liberalizations (LII) and external liberalizations (LIE), 1994 –1997.



Source: Fischer and Sahay (2000).

Successful liberalization of domestic and external prices was not the sufficient condition for changing the behavior of economic agents and introducing market based profit orientation as the main incentive driving economic developments as progress in privatization and restructuring has been very slow before the crisis of 1998. In its survey, the EBRD assigned both reforms a 3 and 2 rating respectively, on a 1-5 scale. Since the beginning of the 90s, three privatisation programs were adopted and implemented, the first one - for patrimonial bonds - in 1994, the second - mixed privatisation for bonds and cash - in 1995-1996, and, finally, privatisation for cash exclusively in 1997-1998. All programs were heavily delayed, implemented fragmentally and highly politicised. For that reason Moldova lagged behind not only behind most successful reformers but also Russia and Ukraine.

Figure 31. Share of private sector in GDP



Source: Fischer and Sahay (2000).

While state management proved to be very inefficient, the most important weakness in the privatisation process largely conducted on non-cash basis was the lack of improvement in corporate governance in the privatised companies. Two thirds of all property for privatisation against patrimonial bonds is controlled by investment funds²⁷. On one had, due to shortcomings of the legislative base, the funds could not control managers. On the other hand, the funds themselves gave in to the temptation of gaining unjustified profits through transfer pricing and asset stripping. It is widely accepted now that voucher privatization was a mistake because of the lack of transparency in the voucher privatization process resulted in the postponement of formation of effective owners and absence of microeconomic restructuring²⁸. The introduction of market mechanisms required labor shedding or, alternatively, a decline in real wages. Moldovan enterprises failed to fully undertake this task, mainly due to “the soft budget” conditions created by the government. In place of cost-reduction and restructuring, enterprises adopted the strategy of state aid seeking. The state aid was not only expected in the form of explicit and implicit subsidies, but also through favorable netting out operations. Enterprises were ready to assume the huge liabilities (including wage and tax arrears) in anticipation of government intervention and did not try to take very unpopular decisions of job reduction or wage cuts. The shrinkage of industrial employment was not sufficient to result in labor productivity gains²⁹. However, due to social pressures and self-serving management, real wages increased rapidly. Therefore, profitability of industrial enterprises worsened rapidly. Unless enterprises face real hard budget constraint, there will be no scope for serious restructuring. Therefore providing such constraint is the most important role for the government’s industrial policy - apart from privatization. Unfortunately, even after the crisis the government tends to provide in various forms “soft financing” to enterprises. It was, however, accepted by the authorities that cash privatization is better way to improve the corporate governance of enterprises concerned rather than the voucher or insider privatization or direct government intervention in enterprise operations. Inefficiencies in the state-controlled energy sector also had profound negative implications for the economic situation. Uncontrolled consumption of energy, coupled with growing arrears, led to the internal and external imbalances and high indebtedness. Only after 1998 did the process of privatizing the energy sector start. It is expected to bring strict payment discipline and rationalization of energy consumption.

²⁷ See: Ellerman (1998) for discussion of the role of investment funds in voucher privatization in transition economies.

²⁸ For detailed discussion see: Mihalyi (1999)

²⁹ For detailed discussion see: Jarocińska (2000)

Although the process of privatisation has been significantly accelerated in the period following the crisis of 1998, much of work has to be done in the future. At the end of 2000 the privatisation neither of leading winemaking and tobacco enterprises, nor “Moldtelecom”, nor heating and electricity enterprises, nor heating distribution was carried out. Out of the 1,155 companies included in the privatisation program for 1997-1998, only 661 companies have been privatised so far. As a consequence of years of neglect and consequent reduction of market value of enterprises combined with high political instability, it is very difficult to attract investors, even to participation in the privatisation of natural monopolies. The key issue during a privatisation is the resistance of directors of the privatised enterprises, which are not wishing to lose the control over assets³⁰. This is because high level of corruption and incompetence of state ownership allows managers to draw unjustified personal profits at the expense of enterprises. The government therefore has no options: cash privatisation is the only realistic solution for improvements in corporate governance and reduction of fraud in state owned enterprises.

Emergence of non-payment culture

Netting out and barter operations, and in-kind payments, proved to be a persistent and harmful element of economic life in Moldova. These instruments contradicted principles of the hard-budget constraint and profit-orientation. The non-payment culture emerged as the government first allowed to run up the tax arrears and budget expenditure arrears, and then decided to offset these two non-payment flows. It further reduced the compliance rate and increased the difficulties of tax collection. Non-cash tax revenues could not be efficiently distributed according to spending priorities. In addition, non-cash transactions encouraged enterprises to avoid placing their financial means within the banking system, where they can be seized against tax liabilities. Immediately, the intermediation role of banks was reduced with a negative impact on savings and investments.

Due to netting-out operations, enterprises could avoid adjusting their production profile and potential to the effective market demand. Instead, the production activities were driven by inertia. The low real market value of produced goods forced enterprises to trade them on a non-market basis – for tax liabilities, or to transfer them to workers as a substitute for wages. Barter and in-kind operations preserved, therefore, the inadequate production profile and impede restructuring, while adjustment to the market demand was the very first requirement for the economic recovery. The quality of products remained generally very low which made the expansion to western markets very difficult. Barter transactions hampered price adjustment between demanded and non-demanded products and, therefore, they effectively transferred money from good enterprises to bad ones and could be considered as the implicit subsidy to inefficient enterprises. Proliferation of arrears was another phenomenon at the roots of the crisis. Arrears undermined the credibility of the state, making the economic agents more reluctant to meet their tax obligations towards budget. They destroyed the link between consumption of goods and services and their payments, and, as a consequence, led to the irrationalities in consumption, as in the case of the energy sector.

The excessive dependence on Russia as a dominant trade partner (see above) had an additional negative influence on the restructuring efforts of Moldovan enterprises. Traditionally, Moldovan producers have from a privileged access to relatively low competitive Russian markets. However, this situation impeded the development of marketing skills of Moldovan enterprises, as well as the quality adjustment of goods. On the other hand, the export to Russia was politically promoted, in order to cover the import of energy from this country. Barter operations had a large share in total transactions with Russia, which induced further negative consequences. As a result, the dependence of the economy has been raising, which allowed Russia to enhance its terms of trade against Moldova, and significant part of negative shocks faced by Russian enterprises during the transition

³⁰ See Djankov (1998) for detailed analysis.

was transferred to Moldovan firms. Rapidly entering the international markets was unlikely as Moldova faced difficulties with compliance with international standards of quality (as ISO certificates).

Ineffective bankruptcy procedures

The hard budget constraint and the control of creditors may contribute to better corporate governance and elimination of the non-payment culture. Especially the consequent and efficient implementation of the bankruptcy law mechanisms can ensure financial discipline and development of viable strategies in enterprises. The first variant of the bankruptcy law was adopted by the parliament at the beginning of 1992. Poor quality of preparation of this law and absence of legal institutions for its implementation has caused practical non-appearance of bankruptcy procedures until the end of 1997. Improvement of the legislation and mechanisms of bankruptcy procedure became therefore a priority for the government and the parliament in 1999 and 2000. Only recently however there is a political will to actually bankrupt loss-making companies, whose exclusive result of operations is the accumulation of debts. Accordingly, in early 1999 the government has adopted the decision that committed Ministry of Finance not only to speed up a development of new national standards of book keeping, but also to initiate promptly bankruptcy of the loss making enterprises. The same recommendation was given to the Social Fund while power enterprises were committed to initiate bankruptcy of enterprises, having energy debts. Although over the last three years the economic court declared as insolvent 213 companies (practically none before the end of 1997), the number of actual bankruptcy procedures is much lower than their potential number. Even as the understanding of the necessity to bankrupt enterprises is rising, there are important obstacles to efficient proceedings, including foremost low quality of law and lack of functioning judiciary. As an alternative to the bankruptcy procedures some potentially viable enterprises are undergoing restructuring process. The reorganization plans are elaborated and implemented by these companies with the support of the Council of Creditors and ARIA (Agency for Enterprise Restructuring and Assistance). Restructuring and reorganization activities with ARIA technical assistance have achieved some success between 1997 and 2000. However, experts insisted on creation of the new legal rules for the acceleration of restructuring processes. Accordingly, in early 1999 the government has approved the decision "On urgent measures on restructuring and financial improvement of the industrial enterprises". Although many rules of this decision are not executed up to now some improvements in restructuring process with the benefit of participating companies have been reported. This achievement is particularly important as currently over 33 percent of the industrial enterprises currently do not operate or operate in much below capacities, generating losses.

Barriers to growth of SME

The creation of a competitive private sector is a necessary precondition for development of the real sector of economy³¹. While the privatisation of large industries is very important, the majority of Moldova's enterprises began operations only after 1995 and newly created enterprises (excluding agricultural farms) amount to 81.8% of today's firms. These firms are usually of small and medium size as such firms require the least investments, are efficient in the underdeveloped sector of services and can quickly react to changes in demand. Still, the largest part of small and medium enterprises (about 166,000 or 84.8%) operate in the field of unorganised business as self-employed individuals. Until the end of 1998, there was no suitable regulation of such businesses. As a result smallest firms were pushed into the shadow economy and had huge problems of obtaining bank credit. Only in the end of 1998, the law "On entrepreneurial patent" was adopted by the parliament. This law allowed for the legalization of the smallest firms, however its low quality allowed for

³¹ The private sector constitutes 62 % of value of enterprises assets, 86 % of net sales, 76 % of employment and 66 % of GDP.

much ambiguity and various interpretations and for that reason it has been changed already two times. It obviously contributed to the poor effectiveness and low popularity of the new legislation. Accordingly, only about 26 thousand persons hold entrepreneurial patents at the end of 2000, i.e. only 20-25 % of the potential number. Moreover approximately 90 % of all patents are given out to firms involved in trade, with not much development of small production enterprises.

What has been hardly changed in Moldova in recent two years is the high degree of state interference in enterprises activity. In this respect, the single most important obstacle for entrepreneurial activity is in the large number of licences. So far only some work has been undertaken towards better organisation of licensing and eliminating the excessive freedom of the government to set up new licences. Until 1999 licensing was realized on the basis of government decisions. Such decisions were approved in 1990, 1995, 1997 and 1998. At the beginning of 1999 the Constitutional Court of Moldova has recognized these decisions as unconstitutional. According to the new Law "On licensing of activities" adopted in June 1999, there are 13 ministries, the National Bank, 3 departments and 10 other state bodies issuing licenses for 106 types of activities. Although the new law put an end to the "spontaneous" licensing, the number of licences itself should be considerably reduced in order to streamline the registration, licensing, and administrative procedures that hamper the establishment of new enterprises and pushes others towards operations in the shadow economy. Licensing procedures and the frequent controls by tax officers are also the most common opportunities for "taxing" small and medium enterprises in the most devastating way; i.e. through predatory corruption. For some time there existed the belief that moderate corruption may "oil" the bureaucratic machinery. In Moldova the opposite effect was however taking place – regulation was complicated precisely in purpose of generating opportunities for rent seeking and bribes. Uncertainty about the size and frequency of forced payments of this kind makes the opening of a new business a very risky decision. Yet, the problem of corruption has not been seriously addressed in any way so far, there was not a single official convicted for corruption.

At the same time small and medium enterprises face acute problems of financing. The high interest rates of crediting (32-35% in 1999) limit access of enterprises to financial resources. The majority of representatives of small business have no knowledge and experience for work with credits, also banks are reluctant to lend to the sector. Accordingly, during 1999 only 11.2% of businesses invested in the purchase or rent of fixed assets. The last two years have brought some improvements in this respect. The most importantly, with a reduction of the budget deficit commercial banks lost the most important source of income – interest earned on T-bonds, in 2000 the share of credit to the economy in the total stock of money increased to 51% from 87% at the end of 1998³². There is some indication that banks indeed try to make credit products more accessible to smaller enterprises. It is believed that this process will be further accelerated in 2001. The National Bank of Moldova supports this process through the constant strengthening of the banking system and the attraction of foreign investors. Alongside with commercial banks realizing micro crediting still rather reluctantly, specialized enterprises for micro crediting are operating at the wider scale. Simplified procedures of crediting allows issuing credits usually within 10 days from the date of the first appointment, and up to \$ 2000 - during 4 days; that is very attractive for small business. The state also started to act more actively in the interest of the sector. In mid-of-1999 the State Program for support of small entrepreneurship for 1999-2002 was adopted. Within the framework of this program the Ministry of Finance approved the rules of granting tax credits to small and micro-enterprises. The program envisages three-year long vacations in paying the value-added tax for 2 groups of firms - small enterprises employing 6 to 19 people and having an annual turnover of 3 million lei, and for micro-enterprises having up to 5 workers and a turnover of one million lei. The mechanism of tax credits allocation is imperfect, with plenty of bureaucratic procedures. Therefore, to take advantage of these privileges is possible only to a few representatives of small business.

³² Note however, that very low ratio of credits for real economy in 1998 was a result of the crisis and direct credit extended by central bank to the government.

Presumptive tax law for small enterprises is also considered as the stimulation for the growth of this dynamic sector of the economy. Tax exemptions (which in Moldova always can be revoked anyway) are however not crucial for the development of the sector, rather stability of law and regulation is essential. Therefore it needs to be concluded that in spite of some improvements, a favourable climate for development of small and medium business in Moldova is not created yet. As bureaucratic impediments persist and the corruption remains high, the shadow economy prospers and entries to the legal business life are scarce. Legalization of activities would be more profitable only if legal activity would guarantee legal protection, reduce predatory treatment, and allow for the access to banking sector. Such improvements of the environment for SME development, conducive to investments are still moderate or non-existent.

Banking sector crediting government and not business

The search for business opportunities based on improvements in the production and sales' efficiency requires adjustments and necessary investments. There are two crucial issues that determine the level of actual investments. The most fundamental issue of confidence, stability and protection of investments are discussed in the next section. Closely related is the issue of financing. For a small open economy like Moldova, foreign direct investments are crucial for the development, as they bring not only capital but also modern technologies, managerial and marketing oriented know-how. Equally important is the effectiveness of the banking system in converting savings into productive investments. Starting from 1992, the NBM put in place prudential regulations for all banks, subsequently revised in March 1995. These set the standards for the Moldovan banking system compatible with Basle provisions. Generally speaking, the situation in banking system of Moldova was stable and did not undergo any major shock. However, from the financial prospective, the banking system was weak and undercapitalized. As of April 1999, out of the existing 23 commercial banks, 5 originated from the reorganization of the former state specialized banks, and 18 were the new banks, including branches of some foreign banks. Privatization of the banking sector has been completed - with the exception of the troubled Saving Bank taken over in late 1998 by the government due to serious mismanagement in the past. Western bankers are unwilling to invest their capital in Moldova, but this is related to the general economic and political conditions in the country and not as a result of the weaknesses of the banking system itself. The commercial banking system has faced a number of difficulties, such as: insufficiency of qualified personnel, lack of experienced local bankers as well as weak technical and material base. The areas, which suffered most from these shortcomings, are those of credit allocation, loan supervision and legal settlement of issues related to debt reimbursement. However, significant efforts have been made by most banks to overcome these constraints. One of the crucial problems is the low availability and high cost of credit, partly resulting from insufficient development and limited competition in the commercial banking sector which continues to keep the real cost of credit at a high level. Because of big risks (economic instability and imperfection of collateral mechanisms), commercial banks refuse to make long term investments in a real sector. During 1995-1997, interest rates on state securities gradually decreased following the reduction of inflation but they were often high enough to stimulate commercial banks to use available funds for buying T-bills and getting easy and guaranteed profits instead of crediting the economy. Again, only structural changes in real economy, coupled with fiscal contraction, can change the situation. Therefore stimulation of growth would require a strictly supervised further development of capacities of commercial banks (including building know-how and experience in crediting real sector) and also the reduction of attractiveness of portfolio investments in T-bills. This can be achieved only through the consequent tightening of fiscal policy, which is more conducive to growth of productive investments than direct lending from the budget. Direct efforts of the government to support investments should be undertaken with much caution and be focused on projects with the highest social return, which is not fully internalised by private markets: transport infrastructure and human capital development. However, it should be strongly underlined, that in most of successful transition countries own

resources and retained earnings were the major fuel of initial growth. Firms and individuals invested these resources only because an appropriate level of confidence was secured by the state structures. In case of Moldova, these resources either remain idle or are transferred abroad.

Alternative framework: multiple equilibriums in transition

Below we present the new framework of analysis that would allow us to investigate better the impact of combination of economic and non-economic conditions on particularly disappointing growth performance in Moldova. Background cross-country papers established growth determinants characteristic for countries in transition as a group using cross-country growth regressions. However linear regression specifications exclude the possibility of multiple equilibriums driven by unfavorable combinations of several variables. In this section we will argue that this problem is serious, as disappointing growth performance in the country as Moldova during transition period might be a result of vicious circle of mutually reinforcing negative influences. Such vicious circle creates the situation in which economic agents have incentives for rent seeking and other value detracting activities and not for production. Similarly politicians are interested in preserving status quo and not in the introduction of real structural reforms. Another important criticism of cross-country growth regressions is that they often simply describe correlations between growth and explanatory variables rather than explain the nature of growth mechanisms. In this respect they are “untheoretical” In this section we attempt to provide theoretical framework for specifications including institutional and political variables as in our opinion the deep economic decline in Moldova during transition period is due to the extreme case of government failure to establish the clear, credible and equal rule of games for all. In this respect our results are very well placed within post-Washington consensus, underlining the institutional factor affecting growth. The high degree of government failure is in turn mainly explained by the lack of certainty concerning future shape of statehood. It means that in this section we can show how fundamental non-purely economic problems (especially those related to the poorly defined nationhood) are translated into extremely unfavorable economic performance. We shall also argue that initial conditions influence economic outcomes mainly indirectly, i.e. through impact on policies. Accumulation of external debt is viewed as a special factor that relaxed “budget constraint” and therefore perpetuated the sustainability of bad equilibrium.

Value detracting activities

In Moldova as in other transition economies, much resources - especially entrepreneurial energy and human capital - is wasted in non-productive or even value-detracting activities. Most of them are linked to various forms of rent seeking (searching for profits artificially created by state induced distortions). The most common distortions include hampering competition through extensive licensing and barriers to entry - what encourage monopolistic practices - and inducing dependence of economic results on government decisions through unequal treatment of enterprises through subsidies or tax exemptions. Accordingly, we shall argue that initial conditions influence economic outcomes mainly indirectly, i.e. through impact on policies rather than directly on economic performance. While regional country papers commented on the issue of political Dutch diseases in which political and economic life is concentrated on the gaining control over rents from extraction of natural resources we quantify this result. The example of Moldova shows rather that economic rents that can be extracted and to large extent endogenous (and not exogenous as natural resources are). In Moldova the main fight was actually over control of energy resource imports in the absence of any domestic energy resources. Due to actions of organized vested interested groups in this sector and partly due to some social considerations (reluctance to impose market prices of energy on consumers), the market was extremely non-transparent and very distorted. Under high barriers to

entry, large economic rents were created. While the state remained the “payer of the last resort” due to its implicit guarantee of energy payments towards foreign providers (especially Gazprom of Russia), resources could be easily extracted by some private agents with the state budget left with the large external debt related to energy arrears. While the transition story can be summarized as:

natural resources → high rents → struggle for control, corruption and barriers to competition

The example of Moldova shows different “endogenous” mechanism

vested interest and corruption → barriers to competition → high rents → struggle for control, corruption and barriers to competition

What is clear from the Moldova scenario is that it is not necessary to have resources to produce “political Dutch diseases”³³. Instead the scenario points to the possibility of multiple equilibrium, that is affected by the existence of natural resources, but also by cultural factors affecting quality of government institutions. Accordingly this paper argues that the success or failure in the transition process can be interpreted in terms of achieving virtuous rather than vicious circle. Vicious circle can be characterized by following mechanism:

transparent and honest politics → high competition → low rents → low corruption and absence of strong vested interest

Finally, what is the limit to the decline under the “bad equilibrium”? Anecdote about mafias of retired person struggling for control over trash bins in the richer parts of Chisinau offers a very pessimistic answer to this question. In line with our former argument, it is possible to extract and struggle for rents, even when those are negligible for an outside observer. We should also note that the possibility of endogenous regulation has been somehow upheld by Hellman and Shankerman (2000). They show that state interventions, state benefits to enterprises and corruption are positively correlated across countries, although they are negatively correlated at the individual enterprise level. This means that in a country of excessive regulation an enterprise needs to choose whether to tolerate the bureaucratic intervention and receive some sort of support or to buy the independence at the expense of bribe. In more business friendly economy, firms do not have to face this dilemma. The former situation might be initiated by both politicians seeking to increase their bargaining power against firms or large enterprises seeking to get unjustified state support. We argue that both pressures, often named “grabbing hand” and “state capture” operate simultaneously. Hellman and Shankerman (2000) also argue that countries with high state capture should in general take less genuine reforms and lower quality of governance. This claim is also confirmed by our observation of transition process and its political background in Moldova.

Even more dangerous than attractiveness of rent seeking is good climate for activities that are on the verge of criminal offence. Weak state structures, corruption and lack of effective law enforcement give rise to actions ranging from smuggling and tax evasion through asset stripping to fraud and racketing. These activities not only divert economic resources from productive activities but also discourage development of honest businesses. “Prisoners’ dilemma” situation is then observed, i.e. a theoretical situation in which each economic agent is taking optimal decisions from his personal perspective, but in the end everybody is worse-off. In the extreme example, if it is more attractive to take than to produce, nobody is producing and everyone is trying to take. In the end there is almost nothing to take and everybody is much worse-off in comparison to initial situation, let alone the outcome in which everybody is producing. Unfortunately, without external constraint (ethics, law

³³ Other negative influence of high natural abundance include impact on policy failures and therefore inflation, education and structure of external trade (Campos and Coricelli, 2000).

and threat of punishment) the latter situation cannot be achieved, as individual temptation to take is too high to be resisted. We elaborate below the very simple mechanism along these lines, that might explain the impact of such trust related incentive on growth performance in Moldova but also in other transition economies.

Model

Consider simple hypothetical situation. There is an economy consisting of two identical economic agents. Both have fixed stock of assets at the disposal, evaluated at A (world prices). Using these stock of assets it is possible to restructure existing production and achieve profit rate $p\%$ (so that profits equal pA). Alternatively, A represents private savings that can be invested in the business start-up. However there are barriers to the restructuring (or start-up) due to the bureaucracy and administration constraints. Costs of overcoming these difficulties are estimated for simplicity as reducing the profit rate by $k\%$. Alternatively assets can be used in the inefficient production of old product (or keeping savings idle “under the mattress”) and gain no profit at all (for simplification). There is however one more alternative available to each of two agents. He may try to capture part of assets of the second agent. In case of an enterprise this activity may take the form of “soft budget constraint”, that is lobbying for subsidies or administrative protection yielding economic rents. However this transfer is at the expense of other economic agent (taxation). For individuals such activities will mean “wild capitalism” with predation on business partners that we will dub for simplicity “racketing”. Through lobbying (racketing) it is possible to capture $r\%$ share of other agent’s assets. Lobbying (racketing) is however costly, not only through the direct costs, but also because of risk of punishment³⁴. For pure simplicity we present these cost as $c\%$ of assets. The payoff matrix that each of economic agents faces is presented below. The structure of the game is basically prisoner’s dilemma. Each player has dominant strategy and the game has unique Nash solution that depends on values of parameters.

Table 19. Payoff matrix for agents during transition.

| | B | | | | | | |
|---|----------------------------|---------------------------------|-----------------------------------|-----------------------------|------|---------|-------|
| | | <i>Restructuring (start-up)</i> | <i>Old Production (matttrace)</i> | <i>Lobbying (racketing)</i> | | | |
| A | Restructuring (start-up) | $p-k$ | <i>$p-k$</i> | $p-k$ | 0 | $p-k-r$ | $r-c$ |
| | Old Production (matttrace) | 0 | <i>$p-k$</i> | 0 | 0 | $-r$ | $r-c$ |
| | Lobbying (racketing) | $r-c$ | <i>$p-k-r$</i> | $r-c$ | $-r$ | $-c$ | $-c$ |
| | | | | | | | |

Remark: Payoffs to agent B are presented in italics.

Three equilibriums are possible: productive with both agents changing restructuring (starting new business), stagnation with the preservation of former production pattern (keeping savings idle) or destructive with emergence of common lobbying (racketing) without impact on distribution of assets ex post but implying real costs. Total welfare under each three scenarios are respectively: $2(p-k)$, 0 and $-2c$. Note that second round of the game would start at the initial endowment of each agent of $A(1+p-k) > A$ under restructuring (start-up), unchanged A under stagnation and $A(1-c) < A$ under the most negative scenario.

Conditions for each of equilibrium are:

- Cooperative equilibrium – restructuring (start-ups)

It must be more profitable to restructure (start-up) rather than to preserve status quo, therefore: $p > k$, costs of restructuring (start-up) cannot be too high. It must be more profitable to restructure (start-up) rather than to engage in lobbying (racketing), therefore: $p-k > r-c$

³⁴ In yet another interpretation, two managers may either engage in restructuring or in asset stripping.

b) Stagnation

It must be more profitable to preserve status quo rather than to restructure (start-up) or engage in lobbying (racketing), therefore: $p > k$ and $r > c$.

b) Collapse

It must be more profitable to engage in lobbying (racketing) rather than to stay idle, therefore: $r > c$, state structures, law enforcement and social sanctions cannot be high enough to stop lobbying (racketing). It must be more profitable to engage in lobbying (racketing) rather than to restructure (start-up), therefore $p - k > r - c$

To better visualize the result, imagine the highly regulated authoritarian economy with assigned arbitrarily values of parameters shown in table in the first column.

Table 20. Sensitivity of performance in transition in respect to basic parameters of reforms.

| | Initial | Successful transition | Failed transition |
|---|---------|-----------------------|-------------------|
| p (profit rate) | 10% | 10% | 10% |
| k (costs of barriers rate) | 11% | 4% | 6% |
| r (rate gains from predatory activities) | 10% | 10% | 10% |
| c (rate of costs of predatory activities) | 11% | 6% | 4% |
| welfare gain | 0 | 12% | -8% |

Remark: Values of parameters are chosen to represent the multiple equilibrium and are purely theoretical.

In the initial situation there is clearly the stagnation outcome: high regulation constraints restructuring (development of private sector), but at the same time eliminates lobbying (racketing). Total welfare gain in this one shot game is 0. Transition process is basically the reduction of oppressive character of the state structures, can be therefore represented in the simplest variant as the change in parameters k and c (for simplicity we ignore changes in p and r). Compare two, apparently very similar scenarios. In the first scenario k is reduced to 4% and c is reduced to 6%, in the second scenario k is reduced to 6% and c to 4%. Scenario 1 produces payoff matrix, under which both economic agents are involved in the production, that it is not only profitable, but also superior to racketing. Total welfare gain is .12A. This is the outcome of transition that was widely anticipated and indeed happened in countries of Central Europe and Baltic states. Note, however, that under not so quite different scenario 2, both agents have strong disincentive to produce. Worse, the only rational decision of economic agents under scenario 2 is to engage in predatory activities. Total welfare loss is therefore -.08A. This a case of Moldova and other countries of FSU, especially Ukraine. Still, it is well known that cooperative equilibrium under Prisoners' Dilemma can be achieved when the game is repeated indefinitely or at least when the date of its end is not known. In such situation economic agents that discount future costs of non-cooperative outcomes may restraint from predation. Therefore the time horizons of economic agents is very important for the actual developments. However, indefinitely long time horizon is clearly not the case of economic agents in the transition economies, who due to the high uncertainty are focused very much on short time developments. We will discuss this issue at length later.

The outcome of game in case of enterprises can be related to the argument of Gaidar (1999), who argues that transition in FSU has brought worst of two worlds: soft budget without hard administration (present before). This analysis is also well rooted in the research on late Soviet economy. In this system "soft budget constraint was the projection of the situation in which political power of an enterprise was becoming more important than real economic interest. While in

the early communism this tendency was kept at check by very restrictive administration, the system starts to be increasingly corrupted and captured by the narrow interests of pressure groups. As everybody is interested in evading and misreporting, culture of corruption and crime origins. Especially as nothing belongs to agents the perverse situation arises when it is “impossible to buy and easy to steal”³⁵. This covert collusion appeared in full size after the fall of the system. Accordingly, Olson (2000) believes that “it is not speed of privatization that matters but speed of liquidation” as privatized companies retain the power to lobby for subsidies. At the extreme it is better for every firm to lobby for a subsidy rather than restructure, as it is indicated by our model. Accordingly, the organized lobbies are among the most important obstacles in transition. Similarly detrimental to the growth is proliferation of crime, that makes any start-up activities extremely risky. If administrative barriers for new start-ups remain at the same time relatively high, the dynamic emergence of small business very unlikely. If the outcome of the game is negative, the transition is not any more the creative destruction as suggested by Blanchard (1997) but rather destructive destruction. Development of dysfunctional institutions (Coricelli, 1998), such as corruption, barter, payment arrears confirms this view. In following sections we will try to understand the determinants of equilibrium. As key rules of game are mainly established by the government, the factor of special importance is the strength and quality of state structures. The fact that it is fragmented, subject to the short-termism, characterized by uncoordinated corruption and lack of encompassing interest implies that it would fail to introduce necessary regulation.

Determinants of pay-off matrix

It is clear that under our simple model the interplay between the liberalization of private sector development and sanctions against predatory activities drive developments in the transition. Those sanctions combine the law enforcement and informal sanctions against dishonesty, strength of ethics. Special factor that should be accounted for is the time perspective as reputation effects might be very important. While such variables are very difficult to measure, the existence of multiple equilibriums leads to non-linearity in their impact on growth. Therefore, it is very likely that standard cross-sectional growth regressions cannot capture described mechanism well. However many authors hint the possibility of “incentive mix” that is conducive to the bad equilibrium. Filer et al (2000) conclude their analysis of markets in transition economies. “The irony is that these countries frequently have excessive levels of regulation of regulation that inhibit efficient resource allocation or growth promoting investment, while at the same time, they lack the few simple rules regarding disclosure and insider activity that are necessary for a market economy to function well.” Lack of appropriate legal and regulatory environment is therefore “common theme across all the markets we have studied”. Similarly EBRD (1999) discusses “persistent disparity between progress in liberalization and privatization, on the one hand, and the development of institutions that support market and private enterprise (...) on the other hand”. Finally, Castanheira and Popov (2000) argue that the right measure should be calculated as the ratio of rule of law and democratization index. In our opinion the other index should account for the interplay between administrative barriers and sanctions against predation. We analyze the determinants of the pay-off factor in detail below with special focus on the importance of formal and informal institutions for investments, new entries and growth in Moldova. In terms of our simple model it is the issue of the relative size of r and c . The casual look at our control group of countries allow us to see why the performance in Poland outstrips that in FSU countries.

Table 21. Incentives for production and predation in transition economies.

| Ratio: costs of production activity/costs of predatory activity | |
|---|------|
| Low | High |

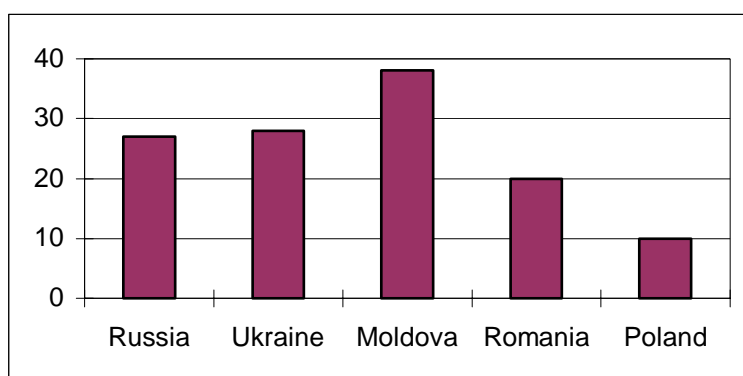
³⁵ Olson (2000).

| Ratio: costs of production activity/costs of predatory activity | |
|---|---------------|
| Low | High |
| Poland | Moldova |
| | Ukraine |
| | Russia |
| Romania (small business) | Romania (SOE) |

Remark: Arbitrary assessment.

Romanian position is the most difficult to determine, as incentives for start-ups in small business were quite favorable while at the level of state owned enterprises rent seeking remained the dominant strategy³⁶. Answers to the survey conducted by the EBRD among enterprises in countries in transition justify such classification³⁷. The extent of lobbying can be measured by pervasiveness of state capture. This measure shows how many firms were significantly affected by the pressures of other enterprises on policy decisions and in Moldova it was much higher than in Romania and Poland or significantly higher even in other FSU countries.

Figure 32. Pervasiveness of state capture, % of firms.



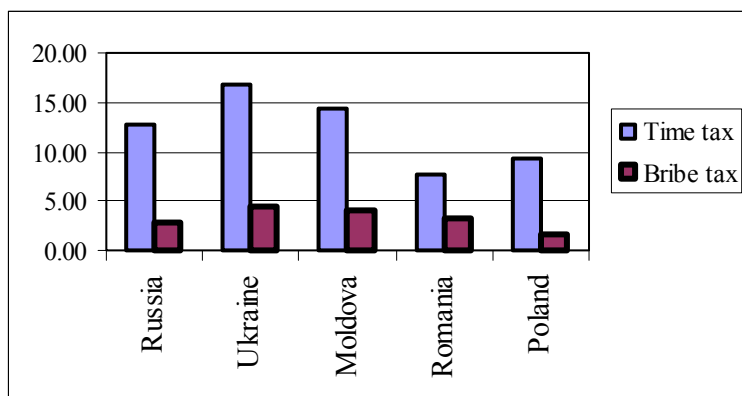
Source: Hellman and Shankerman (2000). Enterprise survey.

In case of small business start-up we use the amount of red type as the indicator of administrative barriers (k). In this respect the environment in Moldova is very unfriendly for entrepreneurs, with worse situation characterizing only Ukraine. In Romania and Poland firms are forced to spend much less time with various officials, also the overall level of bribes is lower. Time tax for new entrants in Moldova (and Ukraine) is especially high (closed to 18%), while for all transition countries it is on average slightly above 10%. In Moldova small firms pay bribe tax of 8% of revenues, that is four times higher than the level for large firms, another evidence for state capture.

Figure 33. Time (as percentage of time of managers) and bribe tax (as percentage of revenues).

³⁶ The similar observation is made by Ickes and Guriev (2000).

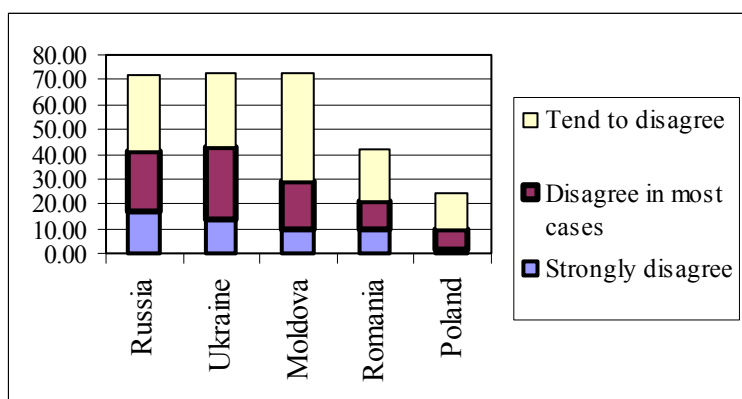
³⁷ As presented in Hellman and Shankerman (2000).



Source: Hellman and Shankerman (2000). Enterprise survey.

Even more striking are the differences in parameter c that show costs of “racketing” or cheating in business activities and measured here by trust in contact and property rights enforcement. In Moldova, similarly as in other CIS countries more than 70% of surveyed firms believe that their property is not adequately protected by the state. In Poland and Romania, these share is only 20% and 40% respectively.

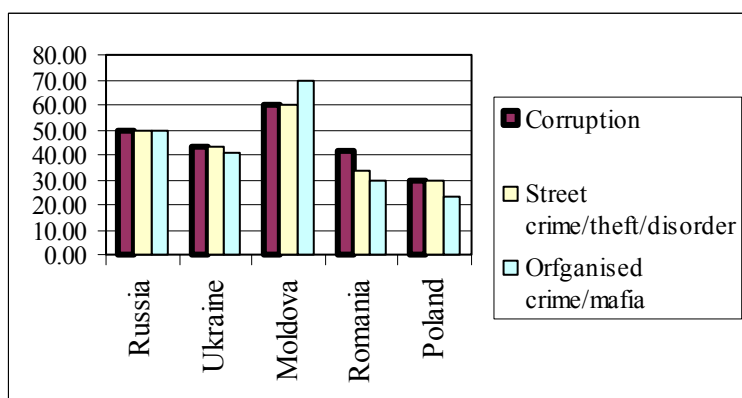
Figure 34. Answers to question: Is your property well protected by law?



Source: Hellman and Shankerman (2000). Enterprise survey.

This negative assessment of security of property is explained well by the scale of corruption, incidence of street crime and mafia activities: Moldova is an outlier on all these measures. In next section we will try to explain why quality of institutions in Moldova is so low.

Figure 35. Main obstacles to growth.

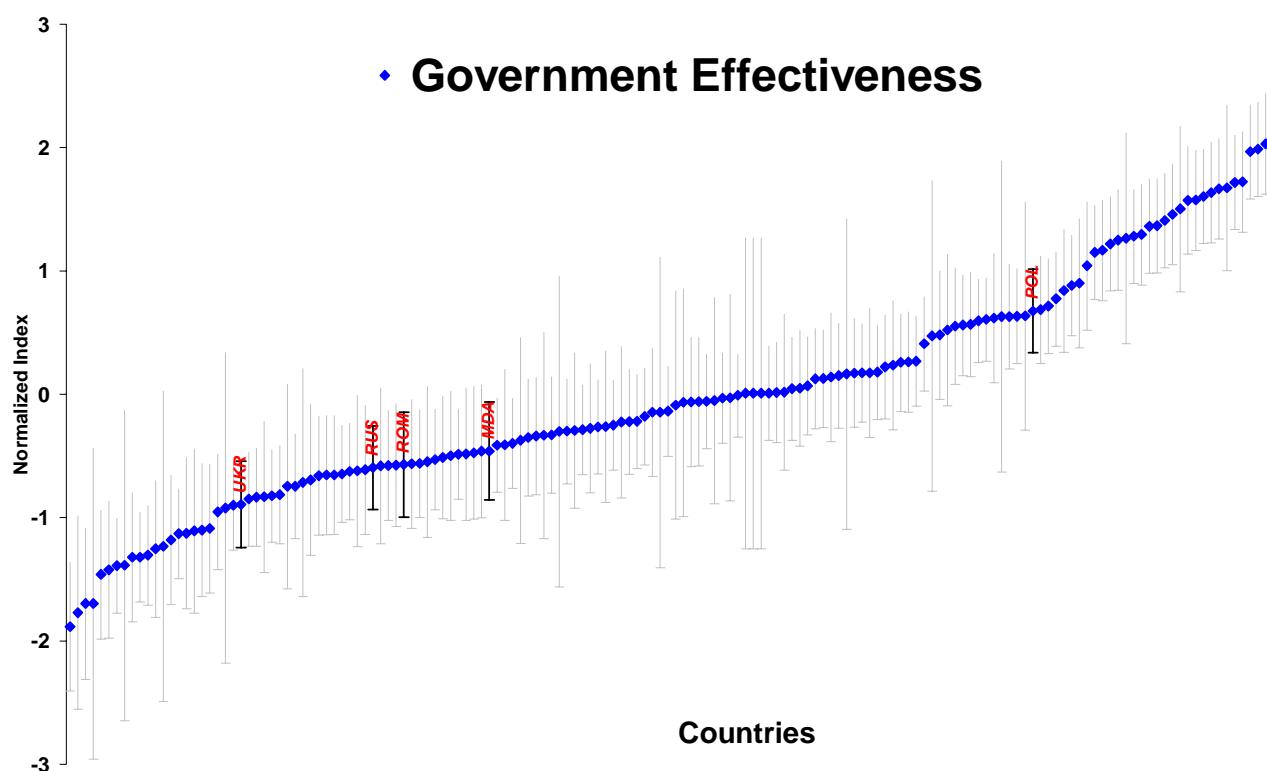


Source: Hellman and Shankerman (2000). Enterprise survey.

Weakness of state and lack of encompassing interest

Moldova is a new independent state. There is no history of self-determination, no traditions of democracy. At the start of independence in 1991 there was no legislation characteristic for the independent state. Moreover national identity was very weak as the accession to Romania seemed to be an attractive option for part for the population while closeness to other ex-USSR republics was essential for others. All these factors contributed to the weakness of state structures in Moldova as old Soviet institutions lost their previous authority and new effective institutions could not be established instantaneously. This had an important impact on the formal law enforcement institutions. Subsequent budgetary problems and increasing corruption reinforced these trends. Authors point to several indicators of collapse of government institutions³⁸. Moldovan performance is dismal in almost all of them. Share of shadow economy is usually estimated at the 60% of official GDP and it is very high in any international comparison. Tax evasion led to the decline of government revenues. Although the initial share of state revenues to GDP was too high for the level of GDP per capita, the decline was excessive and implies inability of state to deliver basic services – especially the critical areas of law and order, education and health care. Moreover reduction were not made in the coherent way with the prioritization of expenditures but rather through ad hoc cuts, sequestration, arrears etc. This not only reduced the efficiency of state spending but also contributed to the spread of virtual economy: accumulation of arrears (both expenditure and tax), demonetization and barter.

Figure 36. Index of government effectiveness.



Source: Dataset from Kaufmann et al. (1999a and 1999b).

As a result the government is one of the least trusted institutions. Figure above shows that poor effectiveness of government is common to Moldova and her neighbors and strongly distinguishes her from successful reformers. Consequences of the state weakness are profound as they are directly linked to the most striking feature of the game presented in this paper. That is "prisoner's dilemma"

³⁸ Castanheira and Popov (2000).

paradox: individual actions of rational agents lead to the disastrous result for whole society. This is because the fall in total welfare is not obviously the disincentive for the particular agent, especially in more realistic situation of larger number of agents in the society. The loss of total welfare is shared among many agents, therefore is much smaller than the direct gain of seizure. This is the most important characteristic of anarchy or strong decline of the strength of state that should represent encompassing interest. Our model is therefore very much in line with the analysis offered by Olson (2000). Olson compares an individual thief for whom total welfare of society cannot be internalized and therefore stop him from committing crime. Such prevention appears when the individual bandit is replaced by the mafia controlling the territory, stationary bandit or the autocrat with longer time perspective. Such arrangement not only leads to the voluntary limit on seizure or taxation, but also leads to incentives for providing some basic public goods. In sum, what is essential is the difference between narrow and encompassing interest. Narrow interests ignore the damage that their actions bring to the society as the whole. This is also related to issues of organized or unorganized corruption. Organized (monopolized) corruption is just another form of taxation and therefore only moderately detrimental to economic activity. Unorganized (voluntary) corruption may lead to the escalation of payments, uncertainty about their total size and therefore distract economic activity. The most important necessity in transition is therefore the introduction of structure of incentives that encourage socially positive and discourage socially detrimental actions. Unfortunately, the collapse of Soviet Union was not matched by the rapid emergence of effective democratic state structures and law enforcement. This is one of key observations made by Cansteneira and Popov (2000). Such situation led to economic environment that resembles the vision of autarchy given by Hobbes. He has noted that life in anarchy is “solitary, poor, nasty, brutish and short”. There are incentive to steal and protect the property rather than to produce. Especially risky is the capital, as “it is easier to destroy than to create”, threats are therefore credible. Olson (2000) therefore concludes that “If a population acts to serve its common interest, it will never choose anarchy.”

These claims are highly speculative but we can support them with some indirect evidence. Recent survey conducted by SISI “Opinia” shows that the main concerns of population apart from those directly influencing their welfare like inflation, poverty (77-87%), salary and pension arrears (66-73%), is the chaos and anarchy, lack of discipline and order at all levels of power (48-68%), corruption, criminality, and massive fraud (45-54%) and country’s future (33-39%). These considerations may explain the relatively good economic performance of authoritarian countries as Belarus or Uzbekistan. First in terms of our game, both costs of entry and racketing (lobbying) are at the preventive high levels, therefore value detraction is very limited. More generally, strong and relatively stable regimes have usually encompassing interest that allow for the some restraint in extracting rents. Although these regimes do not allow for the development of private entrepreneurship and therefore does not offer prospects of sustainable growth they can avoid rapid economic decline. In another variant (Chinese reforms) they may even allow for the reduction in administrative costs without lowering c . In most of cases however well established and stable democracies perform much better. First authoritarian regimes face always a danger of overthrow, therefore they are tempted to take as much as possible in shorter run through inflation, confiscation etc. The problem of succession is also rarely solved in the credible fashion. Second autocrats redistribute incomes to themselves and as Olson (2000) shows, the consumption of autocrats can be huge (military, monumental investments etc). Large majority in the democracy at the extreme may only redistribute from whole population to whole population, therefore the temptation diminishes completely. However, weak and unstable democracy in Moldova failed to create good incentive for economic agents. Olson (2000) brings empirical evidence that there is indeed “a strong relationship between the length of time a democratic system has lasted and the security of property and contract rights in a society”. In spite of wide spread belief in democracy in the beginning of the transition process in Moldova, the importance of democratic institutions was underestimated. In the beginning of independence executive powers were too weak and therefore fell victim to the situation of low

level of law enforcement that characterizes anarchy. Once this happened, people lost their initial enthusiasm and mistrust appeared. That prevented democratic institutions from being improved: another political vicious circle. Changing anarchy into working democracy is very difficult as in the anarchy no contract can be enforced, including the social contract to stop it. As people increasingly long for an autocrat, there is no enough focus on strengthening of democracy. No surprise that the population of Moldova in recent elections has chosen the group strong enough to outgrow anarchy (Communist Party). People risk to have autarchy installed as it proved so difficult to establish functioning democracy.

The question arises: why it was so difficult to establish stable democracy that could guarantee individual rights and encompass wide interests in the first place? Olson (2000) shows that any war conflict or territorial dispute leads to such a high level of uncertainty that short term considerations start to be predominant. It needs to be reminded that since 1992 the country lost its territorial integrity and the Transnistria conducts independent and often hostile policy towards government in Moldova. Although in recent years the risk of open military conflict was relatively low, the potential danger remains. The unresolved conflict is occasionally used by Russia as the form of political pressure on government of Moldova. Ethnic problems in general are often connected not only with war conflicts, but also general political instability and violence, rent-seeking and difficulties in providing public goods, inefficient and unstable policies³⁹. Also national identity could not serve as an encompassing idea in Moldova, as it was clearly a case in most Central European countries. 41% surveyed Moldovans believed that independence brought more harm than good to the Republic, while only 37% had different view. At the same time only 19% commended the collapse of USSR with 63% seeing it as the harmful development. It was actually seen as the most harmful development followed by the introduction of the multiparty system (50% and 21% respectively). Olson (2000) argues that democracy historically emerged simultaneously with individual rights (property and contract) and independent judiciary as the method of constraining representatives of executive powers from becoming autocrats (that is always attractive). In Moldova however, democracy was somehow introduced artificially without two other elements. When democratization is introduced under the absence of the rule of law, greater corruption, poor law enforcement and increase in crime rates are the first results⁴⁰. If viewed in the perspective of classification presented by Castanheira and Popov (2000), Moldova occupies undoubtedly the most detrimental upper-left cell of table as the weak democracy, unsupported by appropriate institutions facing large problems of distorted economic structures.

Table 22. Distortions and institutions.

| Institutions | Weak | Strong |
|--------------|------------------------------|--------|
| Distortion | | |
| High | Moldova Ukraine Russia | |
| Low | Romania | Poland |

Remark: Arbitrary assessment (based on Castanheira and Popov, 2000).

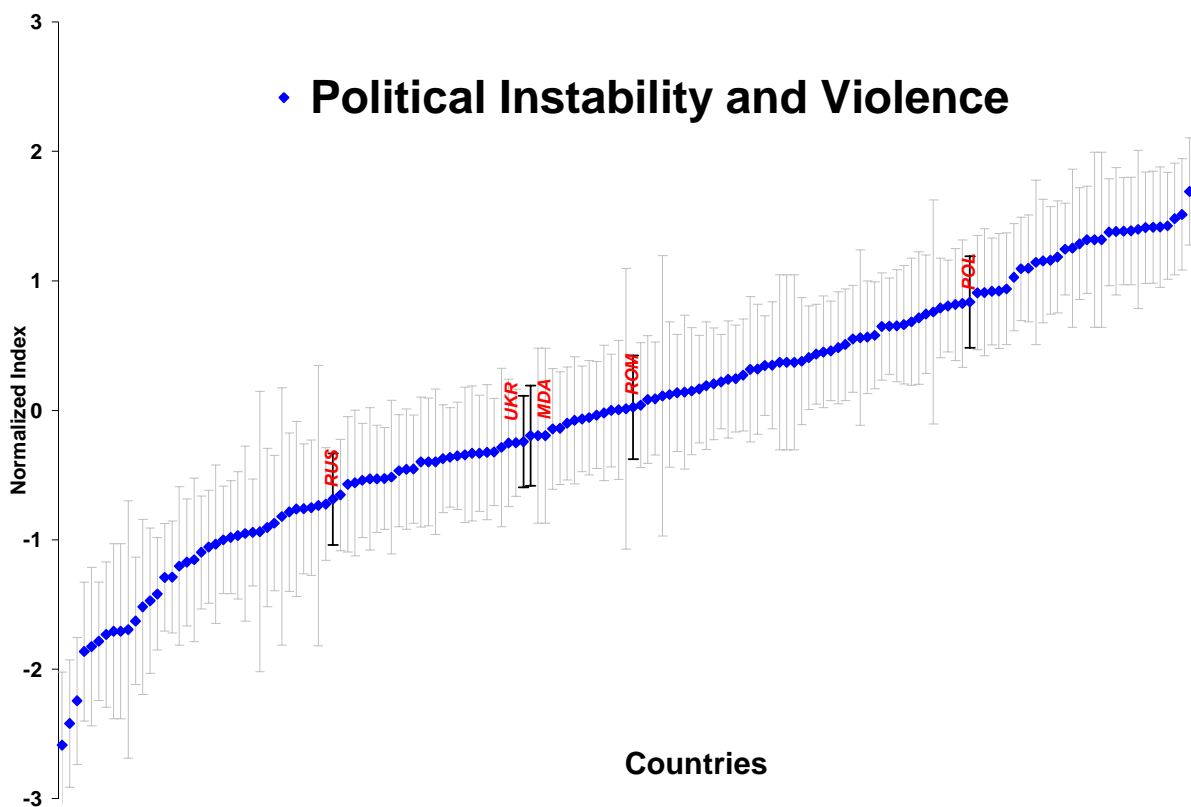
Democracy based on such fundamentals could not be stable and strong enough to provide individual rights. In spite of democratic procedures, the polls are continuously showing a pronounced detachment of governing institutes from people's needs, problems and interests. Thus, people's dissatisfaction by the level of democracy and by the quality of public administration reaches 81-83 percent in Moldova. For several years (1994-98) 80-87 percent of country's population considered

³⁹ Zak and Knack (1998).

⁴⁰ Castanheira and Popov (2000).

that decision-making on vital issues for the Republic of Moldova is made without any consultations with people. Internal political life was also very unstable (SISI 1998) leading to the lack of continuity of actions of six Governments, irrational waste of financial resources and slowing down in the activity of the executive and legislative powers during the frequent electoral periods (1990, 1992, 1994, 1995, 1996, 1998, 1999 and 2000 – all those being election years!). Three electoral campaigns have taken place every four years, all that in conditions of unconsolidated statehood and of an economy with many risk factors. The absence of political stability and continuity in governmental actions in Moldova combined with the military struggle in Transnistria ruined the economic integrity of the country and influence negatively the scope and quality of reforms.

Figure 37. Index of political instability and violence.

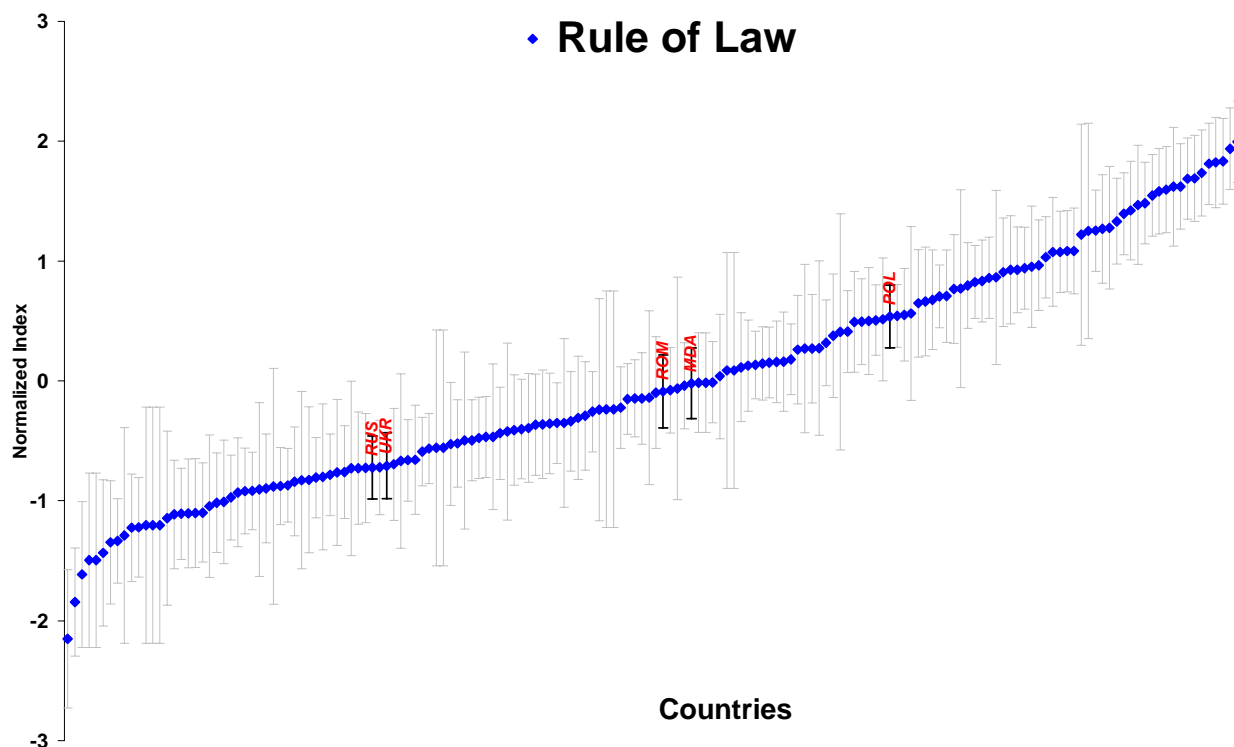


Source: Dataset from Kaufmann et al. (1999a and 1999b).

Formal institutions

Formal law enforcement institutions were weakened during transition period as the old Soviet state structures collapsed and new structures failed to gain the necessary authority. Further on, existing legal regulation did not suit new political and economic system, therefore the authority of law and its enforcement declined also due its low public recognition. Accordingly the score of Moldova on rule of law is poor in comparison to the leading reformer, similar to result characteristic for Romania and high in comparison to the Russia in Ukraine. The last observation is somewhat encouraging, however not fully obvious and nor confirmed by other sources.

Figure 38. Index of rule of law.



Source: Dataset from Kaufmann et al. (1999a and 1999b).

An effective legal system that protects contracts and property in an enforceable manner is the first condition for right matrix of incentives. The Civil Code adopted originally in 1964 does not correspond to the current legal and economic reality, as the law was heavily influenced by communist ideology. By opinion of experts, the Civil Code in Moldova in present shape lacks roughly one third of necessary norms and concepts in regulating life in the market economy. Parallel functioning of Civil Code stipulations and provisions of recently adopted laws that bring different solutions to the regulations of similar legal relations, creates conflicts and ambiguities in the process of application of the law. Accordingly, the work on creation of new Civil Code began in 1997. In October 2000 under pressure of IMF the parliament passed in the first reading one of the three drafts of the Civil Code. The further delay could become the large impediment for market development. However, even if the code is adapted it remains an open question, how effectively will it be enforced, as the juridical system remains very weak and undercapitalised and law enforcement is in turn impeded by corruption. Among the main impediments to business developments are often changes of the legislation, including retroactive modifications. During 1998, for example, there were at least four rounds of changes on the rules governing incentives for foreign investors, some acting retroactively. Similarly, the parliament adopted at the end of 2000 a set of modifications to laws, according to which the state has the right to demand the cancellation of court decisions on sequestrations of property of public utilities issued since January 1, 1999. In summary, some progress in building up legislation in line with requirements of the market economy has been achieved. However, frequent changes in laws were introduced in an unsystematic and contradictory way sending the wrong signals to existing and potential investors, for whom stability, consistency and transparency of legal base are very important.⁴¹

The efficiency of law implementation depends also on the quality of the judiciary institutions. This concerns also the law related to economic activity. However there are only two economic courts in Moldova⁴². There is also a problem of insufficient financing of these structures. There are only 12 judges within district court and each of them considers annually more than thousand legal cases,

⁴¹ MIGA (1999).

⁴² Chisinau district economic court and economic court of Republic of Moldova.

which means that it takes years to complete a particular case. Only recently has the economic court of Republic of Moldova prepared the draft of the law providing for the creation of two new economic courts (at the north and at the south of Moldova) and the increase of the number of the judges for Chisinau district court up to 16 persons. Unless expenditures on judiciary are strictly prioritised in the budget, the prospects for more effective economic law enforcement are marginal. It should be noted that costs of basic government functions are usually trivial in comparison to tax revenues. Under-funding of law enforcement seems to be a very detrimental but easy to avoid phenomenon. However costs of law enforcement are low only if private sector is collaboration through the self-protection, informal sanctions and cooperation⁴³. In Moldova relative strength of the state is low and economic agents dare to challenge the established law. Resulting higher crime brings higher costs of law enforcement. The state fails to prevent and then has no capabilities to punish. This gives incentives for further crimes resulting in yet another vicious circle. Another important issue is that if both parties to the contract are involved in legally doubtful transactions, basically nobody wants to collaborate with law enforcement institutions and therefore costs of detection are much higher. Finally, unlike in most of developing countries, the rich are not interested in strict law enforcement as big fortunes are made in most of cases through predatory activities. This means that the group with strongest impact on policies opposes the rule of law. Finally, the fall in confidence in government due to its limited strength and wide corruption makes the law enforcement non-operational and people search for alternative dispute resolution mechanisms, further promoting development of mafias at expense of state structures. Similarly weak are other formal institutions including professional bodies, guilds or investigative institutions (i.e. Securities Commission). Lack of tradition, practitioners and authority characterize new institutions, leading to their practical ineffectiveness. Again in this respect, countries of Central Europe with own legal tradition were in the much better situation than Moldova.

Informal institutions

J. S. Mill stated that “much of the security of person and property is the effect of manners or opinion” and of “fear of exposure” rather than “the direct operation of the law and the courts of justice”. Informal disciplinary institutions are therefore as important as formal law sanctions, at the same time being much more cost effective. However, also the informal disciplines could not serve its purpose efficiently in Moldova (and to various extent in other transition economies). Informal institutions operate on the basis of generally accepted system of values. To this end, Soviet system of values combined the universal ethical principles with particularities of the communist ideology, making the two elements quite difficult to separate. Therefore, the collapse implied not only the end of communist ideology but also the vacuum in the ethic sphere that could not be rapidly filled in the absence of strong religious influence and developed civil society institutions. In Moldova this discontinuity is seen clearly in every aspect of life, starting from change in manners, fashion, leisure activities etc. Additionally, the last Soviet system brought incentives that led to the difficulties in ethical conduct: “refraining from taking state property is robbing his family”⁴⁴.

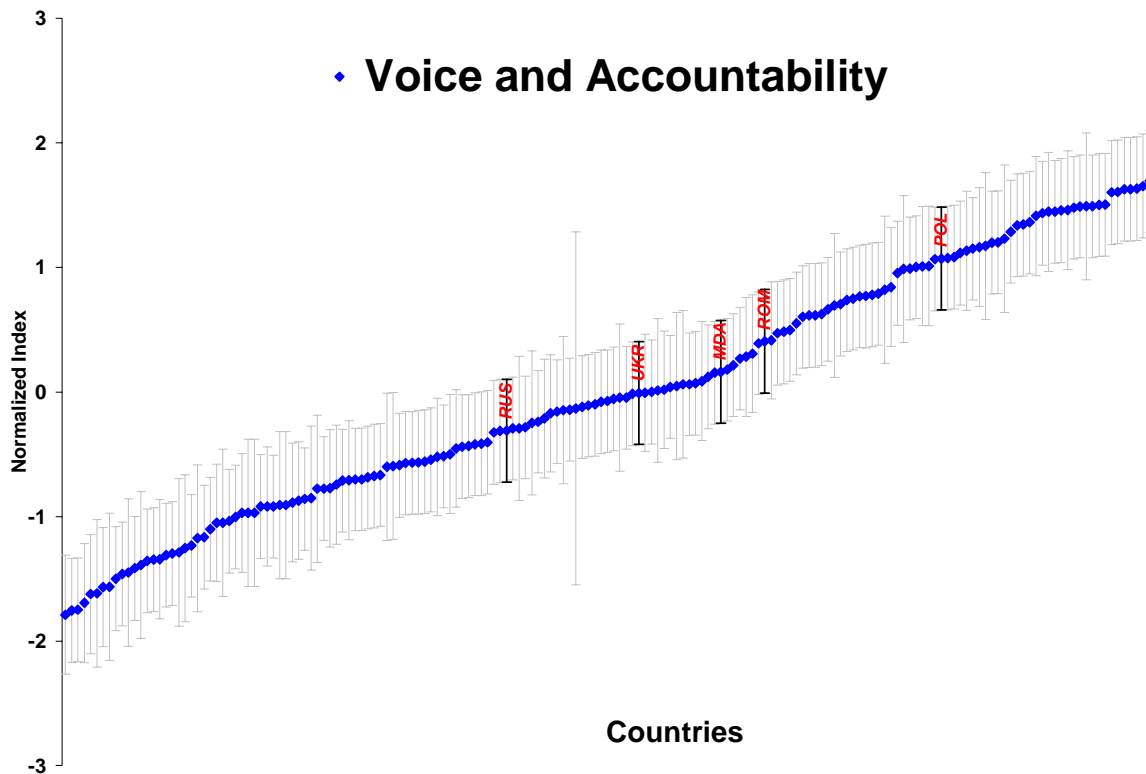
Informal institutions usually work through reputation effect that brings ostracism and loss of profits to reneging parties. This effect depends on socialization and the dissemination of information – free press, credit bureau or gossip. Public opinion is essential in disciplining politicians and constraining corruption, it therefore requires free and trusted media. Moldova, similarly as other CIS countries has the lower score on accountability and voice than more successful transition economies. Moldova is apparently at the same level as Ukraine and far behind Poland. There are initial conditions that worked against strong informal sanctions: short-term perspective that characterizes the rapid profound changes that leads to lesser importance of reputation, weak national identity that again inducing short-sightedness and makes many individuals plan the future outside the country.

⁴³ Olson (2000).

⁴⁴ Olson (2000).

Informal institutions and trust are shown to be higher among people with strong ethnic and family links, common history and similar living standards ⁴⁵. Large migrations to Moldova, especially from other Soviet republics, emergence of poverty and large income differentials reduced social cohesion in Moldova at the time when it was mostly needed.

Figure 39. Index of voice and accountability.



Source: Dataset from Kaufmann et al. (1999a and 1999b).

Importance of trust intensive transactions

All the considerations and especially the “bad equilibrium” in which Moldova is trapped produces the general mistrust in the society. The process of transition involved the collapse not only of the economic system but also of the trust among economic agents, or people in general. Previous research⁴⁶ has shown that countries with exceptionally low level of trust can be caught in the poverty trap. In low trust countries, there are strong disincentives to exchange goods and factors of production, including labor with the impact on non-optimal allocation of resources. Secondly, investing (delaying consumption in time) is extremely risky. For both reasons development is very difficult to materialize. Zak and Knack (1998) argue that people behave in the trustworthy manner genetically. This natural preference is however reinforced by informal institutions in course of socialization and finally guaranteed by formal institutions. The issue of trust is extremely important in every transactions. Transaction happen with social structure that determines rewards and penalties for cooperation and penalties for deviation⁴⁷. Only the simplest spot transactions with full information do not require much social capital involved. There are cases for stronger trust enhancing institutions in transactions with asymmetric information. Creditors and debtors, employers and employees, clients and consultants, insurers and insurees, retailers and consumers,

⁴⁵ Zak and Knack (1998).

⁴⁶ Zak and Knack (1998).

⁴⁷ Becker (1974).

depositors and bankers, bankers and enterprise, taxpayers and government. Without adequate level of trust (enforced by formal and informal institutions) these transactions simply do not take place. According there is capital flight even from countries in which capital is scarce and therefore offers a higher return. It is shown that most basic, self-enforcing spot markets are virtually present even in the most repressed economies. However these most basic markets are not sufficient for generating growth although they are essential for maintaining minimum existence level.

What is essential for growth is the functioning of socially contrived markets and contract-right intensive production. Not all transaction can be voluntary: enforcement of contracts requires often the coercive powers of state, that is in the longer run positive for the society, but at given moment works against particular economic agents (for example borrower). Hobbes states: "covenants without the sword are but words". As Olson (2000) concludes, reformers and their advisers in transition economies missed the central point that market economy does not only combine two elements: demand and supply curves. The third most fundamental element is the contract enforcement. And government in Moldova failed to perform this most essential of all government functions.

III. CONCLUSIONS

We argued here that the fundamental weakness of the economic reforms in Moldova was the failure to create an environment in which the supply side responds to market demand. Institutional incentives work against such adjustments. Prevailing rent seeking, lobbying for subsidies and racketing make honest businesses in Moldova unprofitable and insecure – therefore new business entries do not take place and only dishonest operations are attractive - and the situation is only aggravating in time. This vicious circle must be crashed by the state's decisive effort to improve law enforcement, the struggle against corruption and the state withdrawal from current economic life. Nothing can be more true than the statement from Campos and Coricelli (2000): "market reforms are effective, if they are able to create the necessary institutions for the functioning of the market economy". Channeling human resources from rent seeking and value detracting activities towards value adding ones is an essential condition for growth, both in economic and human development terms. In human terms, the real success of transition is therefore a creation of conditions in which relative well being or even richness can be achieved through high level of education, experience and hard work rather than through "political contacts" or readiness to engage in morally doubtful operations. In other words⁴⁸ behavior of homo sovieticus is well driven by the incentives that it continues to face.

As we showed above current situation is destructive and unfortunate, but it represents the political-economic equilibrium in present circumstances. Switch to virtuous circle requires coordinated effort and that in turn cannot be achieved without generating encompassing interest and stable political support for reforms. However, ten years after the economic reforms were launched, Moldova does not have any political force to consequently and competently promote the institutional and economic reform⁴⁹. Gradualism may allow for a trial and an error policy and more efficient reforms, however this gradual approach in Moldova suffered from most of its weaknesses: reforms were unsystematic and often contradictory leading to weakening of political support for subsequent rounds of reform efforts. Gradual approach allowed also for the emergence of strong groups of vested interest that are a barrier to the decisive crack on distortions. Some may argue Moldova indeed tried to install macroeconomic stabilization and undertake structural reforms for some periods of time. However there was never a willingness to address the most difficult but most crucial issues. In macroeconomic sphere, while it was relatively easy to maintain prudent monetary

⁴⁸ Compare Filer et al. (2000))

⁴⁹ Nantoi (1998).

policy (social costs are very dispersed and therefore not politically important), fiscal adjustment required real life choices. Accordingly tight monetary policy was combined with the lax fiscal policy. The foreign debt problem is the result of this strategy. In the sphere of structural reforms it was relatively easy to convert kolkhozes to joint stock companies. It was much more difficult to distribute land to farmers and really make a difference. As a result the agriculture, leading sector of economy did not have a chance to restructure and develop until the end of 1998. In general it was easy to create a new law or an institution on paper. It was much more difficult to make it truly operational, to develop formal and informal codes of procedures and eventually reinforce the law. The best law can be used against its very spirit if such is general attitude and practice. It underlines again the importance of informal institutions, legal tradition and political culture as well as credibility of government actions.

Accordingly, the most crucial task for the government in Moldova is to reintroduce confidence among economic agents in the rule of law. Such confidence not only generates foreign direct investments and interest in trade with Moldova, but also more profoundly reduces the attractiveness of permanent emigration of the most skilled individuals and diminishes capital flight. It is necessary for investment decisions and business start-ups. It also discourages fraud as chances of getting away unpunished are reduced and the importance of good reputation is higher in the longer time perspective. Key conditions include political stability and most importantly the resolution of the Transnistrian conflict. This is absolutely essential as the lack of territorial integrity and even the slightest possibility of an armed conflict puts under the question mark the state authority and certainty of law enforcement and therefore discourages any serious economic decisions. The individual rights that a democracy provides cannot be secure if the democracy itself is not. Confidence depends fundamentally on the creation of an effective legal system that really protects citizens, entrepreneurs and contractual obligations. Focus on increased law enforcement and the fight against corruption should be the part of a wider effort to improve state structures and to rebuild the authority of the state as the guardian of legal order. Other distortions need to be removed through “the hands-off approach” of the government in respect to current economic life and more actions towards deregulation and demonopolization of markets despite the substantial vested interest built in the course of years that prevents real reforms. Also establishing and sticking to the general pro-European development strategy would make all reform efforts irreversible and therefore much more credible. This is a lesson that can be drawn from the experience of more successful central European reformers.

Only if the institutional factors that led to the prolonged economic decline in Moldova are overcome, the country may have a chance to start a normal development path. Privatization of land would be then the crucial factor allowing to hope for sustained long-term growth. Still prospects for growth will be diminished by the heavy debt burden and the deterioration of human capital due to the crisis in the education and health care system and large emigration. Moldova was ranked according to the Human Development Index in the list of 174 countries at 75th place in 1994, 81st in 1995, 98th in 1996, 110th in 1997, 113th in 1998, 104th in 1999 and at 102nd in 2000. This deterioration would influence growth prospects even in longer term. This is the additional price that country and its population will have to pay for the mismanaged transition.

Douglas North notes that: “The inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World”. According to our research this statement is very much true in respect to Moldova and also other transition economies. We believe that our results are also applicable to analysis of growth in developing countries in general. Relative backwardness might provide the opportunity for high rates of growth but the danger of “institutional poverty trap” is real and must be seriously taken into account in the policy making, especially at times of large structural changes.

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