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Research Report

A free trade area between the Republic of Moldova and the European Union: feasibility, perspectives and potential impact

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A Free Trade Area between the Republic of Moldova and the European Union: *Feasibility, Perspectives and Potential Impact*

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Note: the statements made in this report express the opinion of the authors alone and do not necessarily correspond to the official views of the Moldova-Soros Foundation, the Government of the Republic of Moldova, the European Commission, or any other public or private entity mentioned in this publication.

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About Expert-Grup

Our mission:

EXPERT-GRUP is an independent think-tank located in the Republic of Moldova. Its institutional mission is to contribute to the economic, political and social development of the Republic of Moldova as well as to support consolidation of the country's international competitiveness. EXPERT-GRUP aims to accomplish this mission by delivering top quality analytical services and promoting efficient, transparent and innovative models in economic and social policies.

Main objectives:

- Provide the public with relevant and most up-to-date analysis on economic and social policies;
- Provide assistance in the decision-making and policy-making processes and promote innovative development models.

Areas of expertise:

EXPERT-GRUP has knowledge and extensive experience in the following areas:

- Development strategies;
- Macroeconomics and economic systems;
- Global economy and international economic relations;
- Economy of the European integration;
- Monetary and fiscal policies;
- Labour economy, management and business culture;
- Consumer behaviour;
- Industrial and agricultural economics;
- Economy of health and education.

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About the Project

This publication is launched as part of the project "Trade relations of the Republic of Moldova with the European Union: Current Situation and Perspectives for Enhancement". The project was implemented in January 2008 – February 2009 by the independent think-tank EXPERT-GRUP with the financial support of the Moldova-Soros Foundation. The major goal of this project is to help Moldovan government formulate sound arguments and balanced position for the negotiations with the European Commission on the future Agreement between Moldova and EU. We hope that in this way the project would help to create a Deep and Comprehensive Free Trade Area between Moldova and EU and would contribute to the economic modernization of our country and its economic integration with EU.

The trade regime between the Republic of Moldova and the European Union (EU) has evolved significantly in the last decade. In 1998 the EU offered the Republic of Moldova the Generalized System of Preferences (GSP). In January 2006 the EU replaced the "normal GSP" with the "GSP plus". In March 2008 the new EU Autonomous Trade Preferences for Republic of Moldova entered into force. On the other hand, the Republic of Moldova has preserved a slightly higher protection level against imports from EU. This Project aims to assess the impact of these developments on Moldovan economy and the capacity of Moldovan producers and exporters to make use of the new trade opportunities.

In this project four other studies have already been published. In the first one – "EU – Moldova Actions Plan as a litmus test for the Moldovan government: screening the implementation of the economic part" - the Expert-Grup assessed how Moldova implemented the economic part of the Actions Plan that Moldovan government has signed with the European Commission. In the study "Economic impact of the previous trade regimes between Moldova and EU" we have analyzed the economic impact of the previous trade preferences that EU has granted to Moldova. The study authored by Georgeta Mincu "Trade policy of the Republic of Moldova: export-import requirements in the trade with EU" describes the trade mechanisms and policy tools which affect Moldova's trade in general, with a particular emphasis on trade with EU. While this study is expected to be used mainly as a guide for the Moldovan companies conducting trade with EU, it contains also a number of policy recommendations to the Moldovan government. Finally, the study "Convergence of the transports sector of the Republic of Moldova with the EU standards", conducted by Eugen Hristev, evaluates the degree of convergence, integration and competitiveness of the Moldovan transport sector in light of the European integration process. These publications and other available research suggest that Republic of Moldova has not used the whole potential of trade preferences, with main barriers stemming from the shortcomings of its institutional and regulatory framework.

Our project also intended to map the expectations of the main groups of interests in Moldova and EU regarding the long-term EU-Moldova trade relations. We believe that with the support of this project the Moldovan stakeholders would understand better national economic interests and adopt stronger positions in trade negotiations with EU. In this way, the Project will contribute to strengthening economic integration of Moldova with EU. EXPERT-GRUP believes that this integration should go far beyond the trade dimension itself. It should cover such areas as facilitated visa regime,

participation in cross-border and twinning projects, EU investments in transportation and energy infrastructure, more consistent technical assistance, including for adjustment of legislation, participation in educational and youth programs, integration into European research, development and innovation programs, and other areas.

Executive summary

The goal of this study is to evaluate the potential economic impact of a Free Trade Agreement between Moldova and EU. Obviously, the economic impact of such an agreement on EU would be negligible in any case and the authors have looked mainly at the economic consequences for the Moldovan economy.

Major economic trends over the last decade were generally positive and favourable for further economic integration of Moldova with the EU. After a long and deep transformational recession, in 2000 the economic growth resumed and until 2005 the rate of economic growth of Moldova was higher than on average per CIS and CEE countries. This helped Moldova to start reducing its income gap with EU and transition countries. This trend would have consolidated further but in 2006-2007 Moldova was severely hit by a series of energy, trade and climate shocks which brought the economic convergence process to a halt. Despite these shocks, economic growth remained positive. The short-term economic outlook remains positive as well, partly due to the foreign direct and domestic investment that have grown rapidly in the last two years. As ratio of FDI inflows to GDP Moldova ranked top fourth in the group of CEE-CIS countries in 2007 and it is estimated that in 2008 the inflows remained strong (about USD 650 million). Most of the FDI that came into the Moldovan economy over the transition period originate in the EU countries and in this respect Moldova is already highly integrated with the EU. The number of Moldovan companies which are part of the European value-chains is increasing, especially in such sectors as textile, clothes and shoes. Sectors' and geographic distribution of the foreign and domestic investment suggests that such structural trends as reducing role of Moldovan agriculture and increasing role for services and constructions will go on. By its general economic structure and macroeconomic indicators Moldova is already similar or even outperforming other countries in the Central and Eastern Europe. Moldova has also achieved a reasonable degree of macroeconomic stabilization in terms of stabilizing budget deficit, but more efforts should be undertake in order to stabilize inflation in long-run and reduce risks associated with high current account deficit.

An argument supporting Moldova's readiness to enter into a free trade area with the EU is the fact that presently Moldova already has one of the lowest average customs tariff in the world. However, Moldovan producers and exporters face significant constraints when it comes to access to other markets. Some of these barriers take form of customs tariffs, but most of them are actually technical barriers to trade. This study draws attention to the fact that Moldova's trade in general and with EU in particular is affected by the behind-the-border technical and administrative barriers for which Moldovan government is responsible. Behind-the-border barriers to trade are probably one of the most significant deterrents of the Moldova's exports. As for the EU trade policy, it has been subject to significant changes in recent years but in general the policy was very positive towards Moldova. EU has unilaterally provided Moldova a number of trade preferences for trade in goods. However economic estimates show that the strong growth of Moldova's exports to EU has been driven more by fundamental economic factors rather than by cutting or removing import tariffs. Presently, half of the Moldovan total foreign trade is being done with EU countries. Therefore we can assert that Moldova has already achieved a high degree of trade integration with EU and that the trend is likely to persist in the future.

The effects of an FTA on the Moldovan economy will very much depend on the content and range of the FTA. In order to capture both direct and indirect effects of

a Free Trade Agreement a computable general equilibrium (CGE) model of the Moldovan economy has been used. The authors looked at three scenarios in order to gauge the magnitude of a simple FTA impact under different conditions. The first scenario bases on the increase of fob export prices of Moldovan exports to the EU to simulate the elimination of EU tariffs on imports from Moldova. Under the second scenario all Moldovan tariffs on imports from the EU are eliminated. The third scenario combines the effects of the policy tools from the other two scenarios.

In case of the first scenario envisaging the elimination of the EU customs tariffs, the most likely outcome is a 3% growth of total exports and a 2% growth of total imports, accompanied by a real appreciation of the Moldovan currency. Total absorption and private consumption will increase marginally by about 1%. Light industry shows the strongest potential for growth, while a number of industries such as food and beverages and production of machinery will likely see their outputs decreasing. One of the factors explaining the high rate of growth of light industry is the disproportionately high share of the production factors devoted to the production and exports of textiles in Moldovan economy. The second scenario reflects the elimination of Moldovan tariffs on merchandise imports from the EU. Imports are expected to grow marginally and some diversion of imports will occur from non-EU to the EU region. Exports are expected to increase as well, and the light industry again will show the fastest rates of growth of exports and output. Potential losses of the budgetary revenue from reduction of the customs tariffs are negligible and could be compensated by increasing marginally other taxes or simply phased out over a longer transition period. Under the third scenario, the economic effects are very close to the combined effects of lower export prices and lower Moldovan tariffs in previous two scenarios.

The basic conclusion from these simulations is that most of the structural change and trade effects that would result from a Moldova-EU simple FTA have already been triggered by the Autonomous Trade Preferences that EU has offered Moldova in March 2008. In other words, both positive and negative consequences would be probably small, with agriculture being probably the sector where the negative effects are the highest. Therefore, most significant effects of a simple FTA between Moldova and EU would probably be political rather than economic. From both political and economic point of view a simple FTA is feasible for Moldova.

However, Moldovan government has to strive for a deeper economic integration with EU, i.e. a sort of integration going beyond the trade itself. In such a case, a Deep and Comprehensive FTA is the necessary first step. A Deep and Comprehensive FTA would imply liberalisation of the trade in services, free movement of the labour force and cooperation for supporting Moldova's institutional convergences to EU. The model that was used for economic simulations of a Moldova-EU FTA cannot account adequately for the economic effects of improvement in the quality of Moldova's institutional environment that would converge to the EU standards. Existing international studies on regional economic integration suggest that if EU could help Moldova improve its institutional quality score (based on EBRD methodology) from 3 on average in 2007 to 4 over a reasonable period of time, this would increase the level of GDP by at least one tenth only due to the greater efficiency of resource. The total increase in GDP, allowing for additional investment and liberalisation of the financial liberalisation, could lie in the 20 to 30% range.

Analysis shows that institutional convergence would strongly enhance competitiveness of Moldovan exports to EU. There are many goods not being exported to EU for the reason of not meeting EU food, sanitary and phytosanitary

standards. This is especially the case of meat, live animals, some fruits and vegetables, and dairy products. However, some producers of sensitive goods are successful exporters to the CIS countries, which means that their products can be attractive for the European consumers as well provided that the required EU standards are met. Some of the goods that Moldova exports to EU are already quite competitive. In this study the Balassa index of Revealed Competitive Advantages was used in order to determine Moldova's weak and strong production sectors. Exports of cereals, animal skins and hides, beverages (especially wine), fruit and vegetables (fruit juices and nuts), vegetable oils and oilseeds reveal a strong comparative advantage in the EU market. However, Moldova's underdeveloped and distorted agricultural markets and lack of human capital and technology hamper country's stride to realize and materialize its comparative advantages. Among industrial goods such positions as dyeing, tanning and colouring materials, organic chemicals, telecommunication, TV, sound and video equipment, essential oils and perfume materials, general machinery and equipment, some constructions materials and various miscellaneous manufactured articles are showing high indexes of revealed competitive advantages. In case of exports of services, the two case studies that have been done (exports to Romania and to Germany) revealed that the Republic of Moldova has a comparative advantage primarily in exports of communications services. Also, there are some competitive advantages for constructions and transport, but these advantages are weaker than in case of telecommunications.

In order for Moldova to make use of its competitive advantages and achieve positive economic effects in long-run, this study recommends that the next step in Moldova-EU trade relations to be a Deep and Comprehensive Free Trade Agreement that would enhance the tariff reductions and duty-free access granted currently by the Autonomous Trade Preferences, and would go beyond a simple free trade agreement and include free mobility in the services sector, harmonization of national regulations and standards with the EU acquis. A special attention the Government should devote to the issue of Moldovan producers meeting EU sanitary standards. Other two key areas of cooperation should be energy and transport, both sectors being of vital importance in terms of Moldova's economic security. Another component of cooperation between Moldova and EU is the Moldovan sector of financial services, where much progress was registered so far, but much remains to be done. The study also recommends the Moldovan government to negotiate the free movement of the labour as part of enhanced agreement with EU. In fact the free movement of the labour can have the strongest positive effects not only on Moldovan economy, but in general political and social terms. This would reduce attractiveness of illegal migration and would provide necessary conditions for the Moldovan migrants to return freely home, to reunite families and to bring the savings in the Moldovan economy.

Introduction

Evolution of the relations between Moldova and EU has been more modest and slower than in case of the relations of the European Communities with the Central and Eastern European countries. Even though some international treaties have remained in place after the dissolution of the USSR, the first important document institutionalising relations between the Republic of Moldova and the European Communities – the Partnership and Cooperation Agreement (PCA) – has been signed in November 1994, but entered in force only in January 1998.

The PCA was more a political development without significant economic and trade impact. As recognised in an EU official document, in that period of time “the EU's economic and trade relations with Moldova [were] minimal, and trade and investment potential [was] limited for the EU”¹. Despite that fact that the PCA stated that a free trade agreement would be discussed between the parties of the PCA, no significant progress was made in this respect. Nor Moldova neither EU were politically ready to start such discussions in late 1990s – early 2000s.

In 2001 Moldova became member of the WTO, which was the first signal that it was ready to enter discussions regarding a Free Trade Agreement with the EU. However, no negotiations followed on this issue, with EU being preoccupied with the Eastern enlargement and building internal cohesion. Even though there was no significant progress in setting up a free trade area, EU has offered Moldova unilaterally specific trade preferences. In 1997 the EU offered Moldova reductions of customs duties for a number of products imported within the framework of the General System of Preferences. In January 2006 the EU considerably extended the list of goods with preferential trading conditions for the imports from the Republic of Moldova. In March 2008 the Autonomous Trading Preferences entered into force for Moldova, already providing significant free trade possibilities for many Moldovan products, but for others maintaining quantitative quotas or customs tariffs.

Article 4 of the PCA states explicitly that the parties shall examine jointly, especially when Moldova makes advances in economic reform, whether circumstances allow for starting negotiations on the establishment of an FTA. After Moldova became part of the WTO, with more than a dozen of free trade agreements signed between Moldova and CIS and Balkan countries, and with the PCA becoming less relevant in terms of Moldova's political and economic priorities, it became clear for both parties that postponing discussions regarding an FTA is not possible anymore. European Union is the biggest trading and economic entity in the world. EU produces 18% of the global output, is origin of 20% of the global exports and destination for 20% of the global imports. Obviously Moldova is very much interested to have access to such a market. But how able is Moldova to handle an FTA with the EU and what may be its economic consequences? How feasible is an FTA for Moldova and EU? Should economic relations limit to the trade or should they go to other issues and to which ones? These are the subjects of analysis in this report.

The report begins with an assessment of the major economic developments in Moldova and how these changes affected Moldova's capacities to converge with EU. The chapter shows how Moldovan economy has changed its fortunes turning from decline to growth and what structural changes have accompanied economic

¹ European Commission, Country Strategy Paper 2002-2006, National Indicative Programme 2002-2003 Moldova.

growth. It also looks at main macroeconomic stabilisation efforts and the challenges that are still ahead.

The second chapter contains an analysis of main progresses and stalemates of the Moldovan trade policy. There is also a general description of the EU trade policy which is necessary in order to understand how far EU trade concessions can get. The same chapter includes an analysis of how Moldova's foreign trade rebalanced over the previous decade, with special attention devoted to Moldovan exports of agricultural and industrial products to EU.

The chapter number three includes the results of the economic simulations of a Moldova – EU Free Trade Agreement based on a General Computable Equilibrium model. The chapter presents the model, main simulation results, an analysis on the growth and welfare effects and some general speculations about potential dynamic effects of the FTA.

In the fourth chapter authors have tried to analyse the competitiveness of the main Moldovan products using the Balassa's Revealed Competitive Advantages index. There are some estimates on how competitive are Moldovan agricultural products in the EU markets (this chapter adopts a larger definition of the agricultural products which covers many more SITC positions than only outputs of the agriculture per se). This chapter reveals also a number of industrial products which are already competitive on the EU markets and their competitiveness will only consolidate as customs tariffs are abolished. In the last part of the chapter there is a discussion of the "sensitive sectors" of the Moldovan economy.

The fifth chapter is more explorative in character as it looks at potential areas of enhanced cooperation between Moldova and EU which can consolidate the competitiveness of the Moldovan economy and create necessary preconditions for further integration of the country in the European single market. Such issues are analysed as the role of SPS regulations, priority areas of cooperation in energy and transport. There is a general overview of the Moldovan banking services sector with the aim of assessing how ready is it to cope with competition from EU banks and to get in strategic cooperation with the latter. Analysis of the labour movement in the perspective of the future agreement between Moldova and EU closes this chapter.

In chapter six the authors summarize the main conclusions of the report by answering positively the question whether an FTA would be necessary and feasible for the Moldovan economy. The chapter makes general recommendations to the Moldovan government regarding the issues to be addressed in the trade negotiations with EU and regarding other domestic policy issues that have to be addressed in order for Moldovan producers to withstand pressures on the EU highly competitive markets.

1. Major economic developments in Moldova

This chapter shows that after the transformational recession in Moldova was over, in 2000 the economic growth resumed and until 2005 the rate of economic growth of Moldova was higher than on average per CIS and CEE countries. This helped Moldova to start reducing its income gap with the EU and transition countries. In 2006-2007 Moldova was severely hit by a series of energy, trade and climate shocks which stopped the economic convergence process. However the Moldovan economic outlook remains positive, partly due to the rapidly growing foreign direct and domestic investment. As ratio of FDI inflows to GDP Moldova ranked top fourth in the group of CEE-CIS countries in 2007. Most of the FDI stocked in Moldovan economy originate in the EU countries and in this respect Moldova is already highly integrated with the EU. Sectors' and geographic distribution of the foreign and domestic investment suggests that such structural trends as reducing role of Moldovan agriculture and increasing role for services and constructions will go on. By its general economic structure and macroeconomic indicators Moldova is already similar or even outperforming other countries in the Central and Eastern Europe. Moldova has also achieved a reasonable degree of macroeconomic stabilization in terms of stabilizing budget deficit, but more efforts have to be done to stabilize inflation and reduce risks associated with high current account deficit.

From deep recession to economic growth

Initial phase of economic transition in Republic of Moldova has been among the most difficult in the group of transition countries. At its lowest point in 1999 the country's GDP equalled only 33% of the output produced in 1990. Three sets of factors explain such a dramatic economic decline. Moldova faced more difficult initial conditions than other countries did at that time: poorly diversified economy, total dependence on subsidized prices for energy imported from one source, internal military conflict in 1992 with the breakaway Trans-Dniester region, and dismantlement of the trade relations which in the past integrated Moldova deeply into the Russian and Ukrainian production structures. The second set of factors represents the "policy conditions" and includes political instability over the 1990s, lack of a firm external policy anchor (a role that the EU integration process played in case of central European countries), opaque privatization process, and slow structural and institutional reforms. Finally, because of its economic and trade structure Moldova has been more than other transition countries exposed to external shocks, such as natural calamities, trade barriers and financial crises. Despite a GDP growth episode in 1997 (+1.6%), the economic vulnerability impeded the country to embark on a stable path of economic growth. By the end of 1990s the combination of these factors resulted in generalized poverty, weakened social fabric and massive labour emigration. Moldova slipped from the group of middle-income countries in the group of low-income countries².

Table 1 GDP growth rate, 1999=100%

	2000	2001	2002	2003	2004	2005	2006	2007
Moldova	102.1	108.3	116.8	124.5	133.7	143.7	149.5	156.9
CIS-West	107.2	114.0	119.7	129.2	142.5	148.7	160.8	173.5
Caucasus & Central Asia	107.5	117.5	128.5	141.9	155.4	174.1	194.2	217.4
EU-8	104.9	109.7	114.8	121.1	128.5	137.1	147.6	158.1
EU-15	104.6	107.4	110.5	113.1	116.5	120.0	124.2	128.2
EU-2	103.8	108.9	114.1	119.9	128.9	135.6	145.3	154.1

² World Bank, "Moldova: Opportunities for Accelerated Growth: A Country Economic Memorandum for the Republic of Moldova", September 9, 2005.

Balkans	104.9	108.1	113.2	117.8	124.5	130.6	137.3	145.5
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Source: computed by authors based on IMF

The rebound of Moldovan economy began in 2000 due to positive growth in industrial and services sectors and in spite of the continued recession in agriculture. In 2001-2005 the economic growth consolidated even more, being supported by the aforementioned two sectors and the constructions sector. However, the growth was largely concentrated in the area of the capital-city. Real income of the population has been supported by migrants' remittances and by growing real wages. As shown in Table 1 the Moldovan economy grew in this period almost as fast as economies of Russia, Ukraine and Belarus (CIS-West) on average, and faster than the eight Central and Eastern European countries joining EU in 2004 (EU-8), Romania and Bulgaria (EU-2) and the Balkan countries. The Caucasus and Central Asia area expanded quicker due to the energy-rich countries in the region. Supported by this economic growth, Moldova began converging, slowly but steadily, towards the income level of the CEE and Balkan countries (Table 2). In 2000-2006 Moldova has closed 3 percentage points of its gap with the EU countries and 6 points with the Balkan countries. However, in 2006-2007 the Moldovan economy was heavily hit by the Russian embargo against imports of Moldovan alcoholic beverages, vegetable and animal products. This embargo was erected mainly for political reasons, but the poor quality of many exported goods was a real matter. In 2007 a severe drought has devastated the Moldovan agriculture. The GDP growth rate slumped from 7.5% in 2005 to 4.1% in 2006 and 3.0% in 2007 and the process of income convergence interrupted.

Table 2 Moldova's GDP per capita, as % of the regional averages

	2000	2001	2002	2003	2004	2005	2006	2007
CIS-West	27.6	27.6	28.2	27.9	27.3	28.9	27.6	26.7
Caucasus & Central Asia	70.8	67.5	67.2	65.2	64.5	66.9	62.2	58.4
EU-8	12.8	13.0	13.5	13.7	13.9	15.0	14.5	14.2
EU-15	5.4	5.7	6.0	6.4	6.7	7.5	7.6	7.8
EU-2	23.8	24.0	24.6	24.9	24.8	26.9	26.0	25.6
Balkans	24.7	25.7	26.7	27.5	28.3	30.9	30.7	30.4

Source: computed by authors based on IMF

However, despite the series of trade and climate shocks, the Moldovan economy has proven to be surprisingly resilient. The growth of GDP slowed but remained positive and accelerated again in 2008 (+7.2%). Despite the international financial crisis, the economic outlook for Moldova remains brighter than in other countries in the region. Provided that European and Russian markets (main destinations for Moldovan exports) are not collapsing under the global financial crisis, economic growth in Moldova will persist and can even accelerate. Acceleration of the economic growth will make it possible for the income convergence to resume in 2009-2010. However, it is clear that a qualitative shift is necessary for the economic growth to become stable and faster in long run.

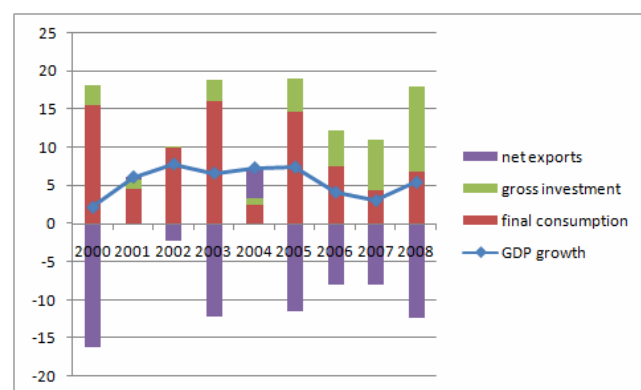
Replacing consumption-based with investment-led economic growth

In 2000s the Moldova's economic growth was mainly supported by increasing regional and domestic consumption demand. The domestic demand played a particularly important role in reviving the Moldovan economy but it also contributed to the escalation of its structural imbalances. The final consumption demand has increased from 90.0% of GDP in 1999 (which was already very high level by both ECE and CIS standards) to 113.4% in 2006. Because of sluggish growth of the domestic supply, the explosion of the consumption triggered a galloping growth of imports. Migrants' remittances played a central role in financing domestic consumption and

sustaining the economic growth. However, in 2005 the capital investment started growing faster and in 2007-2008 the economic growth in Moldova was very much an investment-led growth. As shown in Chart 1 in 2007-2008 the capital investment brought about the main contribution to the total GDP growth.

It is clear that for the capital investment to grow sustainably rather than episodically it is critically important that Moldova becomes more attractive for the local and, especially, for foreign investors. In 2001-2004 a very poor domestic business climate hampered the growth of FDI in Moldova (as shown in Table 3 the FDI in Moldova were among the lowest in the region). However, after 2005 the FDI have surged vigorously and created a positive perspective for the scenario of the investment-based economic growth. FDI inflows into Moldovan economy have augmented from USD 88 million in 2004 to USD 459 million in 2007 (from 3.4% to, respectively, 10.4% of the GDP). In 2005-2007 the FDI inflows have grown in the entire CEE-CIS region. However, in Moldova the FDI growth was stronger than average and propelled Moldova to the top amongst the transition countries. In 2007 Moldova shared with Estonia the fourth position among the transition countries as regards the FDI/GDP ratio (after Bulgaria, Hungary and Georgia). According to our estimates, in 2008 the FDI/GDP ratio reached 10.7%.

Chart 1 Disaggregation of the GDP growth by expenditures, %



Source: own calculations based on NBS data

Table 3 FDI annual inflows, % of GDP

	2000	2001	2002	2003	2004	2005	2006	2007	2008
CIS -West	1.0	1.0	1.1	1.1	2.0	3.9	3.1	3.9	n.a.
Caucasus and Central Asia	3.1	3.5	6.0	8.9	11.9	4.5	5.1	4.0	n.a.
EU-8	5.8	5.3	6.6	2.9	4.4	6.9	7.7	8.5	n.a.
EU-2	5.4	4.4	4.0	6.7	10.1	11.1	16.3	14.0	n.a.
Balkans	3.8	5.9	3.5	4.8	4.9	4.1	7.8	6.2	n.a.
Moldova	9.9	3.7	5.1	3.7	3.4	6.6	7.1	10.4	10.7

Source: own calculations based on data from IMF and national central banks

Due to unclear origin of the FDI it is difficult to establish exactly their structure by country of origin. However, there is no doubt that nowadays the structure of the FDI stock changed completely in comparison with the middle 1990s. Companies located/registered in the EU countries make about 80% of the FDI stock in Moldova (Netherlands 22%, Cyprus and Spain 8.5% each, Italy 7.1%, UK 6.8%, Germany 5.2%, France 4.1%), whereas investments from Russian companies have a share of about 12%. A positive aspect of this shift is that it has occurred without absolute reduction of the FDI stock of Russian origin, but due to the rapid diversification and expansion of the FDI inflows from European countries in 2000s. Most of these investments went to processing industry, finances sector, wholesale and retails. Roughly half of the FDI

originating from EU countries went to companies oriented to export activities. These trends serve as good indicators of steady integration of Moldova in the European value-chains and production structures.

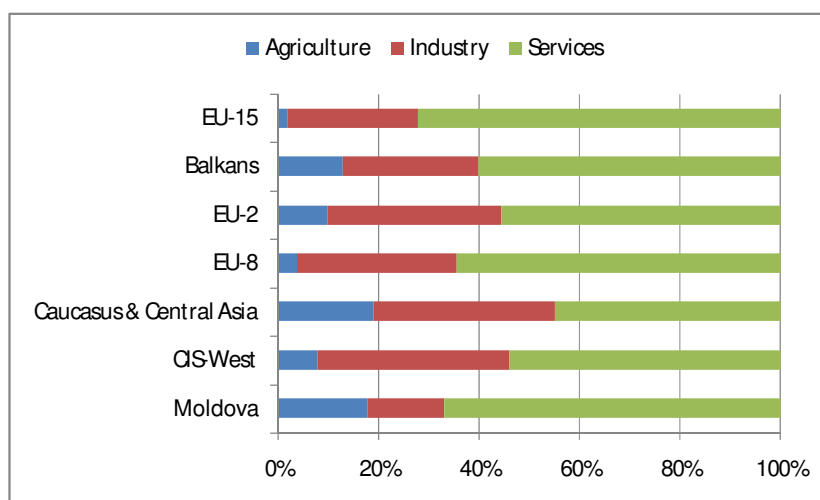
Privatization of governmental shares in a number of public enterprises resumed in late 2007 and has continued through 2008. This is a propitious environment to attract many more international investors in the country, even though the international financial crisis has made the investors more cautious. The more important is under such circumstances to work further to ensure a business-encouraging investment climate, cut red tape, and reduce administrative burdens in Moldova.

Moving from agrarian to modern economy

Significant structural changes

There is a persistent stereotype in the international community in general and in the EU countries in particular that Moldova has an economy which is "heavily" dependent on the agricultural sector with most of its income being derived from subsistence activities. It is true that Moldova relies more than any other European country on agriculture, and related industrial sectors such as food industry, tobacco processing, and winemaking (Chart 2). Moldova has also the biggest proportion of rural population in Europe, almost 60% of total population (even though about 17-20% of its rural population is not physically present in the country but is working abroad).

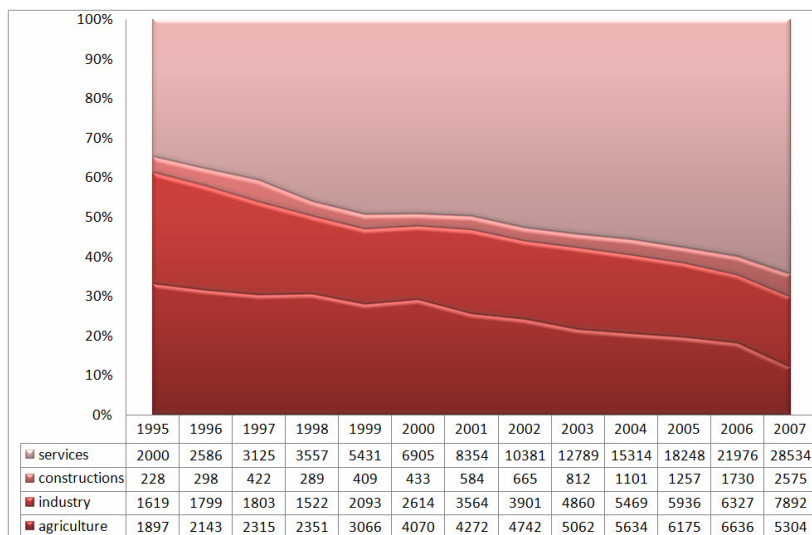
Chart 2 Comparative economic structure of Moldova and some groups of countries, by main production sectors, % of GDP



Source: authors' calculations based on World Bank's World Development Indicators

However one should have a more dynamic picture in mind in order to understand the amplitude of underlying social and economic changes in Moldovan society. While having a relatively large agricultural sector, Moldova has also undergone dramatic structural changes over the transition period associated with a shrinking role of agriculture and expansion of services (Chart 3).

Chart 3 Evolving structure of Gross Valued Added by major economic sectors, % of total (table includes volume of GVA, thousand MDL)



Source: NBS

Even more, the scale of these changes has not been matched by any other transition country in the past 10 years (Table 4). For the sake of complete analysis, it has to be added that these structural shifts are not only due to the rapid expansion of the services sector but also by the protracted agricultural depression. Between 1991 and 2007 there were only 8 episodes of growth in the agricultural sector which did not even compensate for the previous losses. The total production in 2007 represented only 45% of the total output in the pre-transition period. All in all, the move towards a services-based economy in Moldova was the quickest not only in comparison with the regional average but also as compared to all individual transition countries. The reduction of the role of agriculture in the Caucasus and Central Asia countries was slightly larger than in Moldova. However in Moldova the diminishing role of agriculture has been compensated by the more rapidly advancing services sector and not by the industry as it was the case in Caucasus and Central Asia. In the future it is expected that the role of agriculture will reduce even more while the role of services and agro-processing industry will increase.

Table 4 Changes in the share of economic sectors in the GDP, 2006 against 1996, percentage points

	Agriculture	Industry	Services and constructions
Moldova	-13	-16	29
CIS-West	-5	-1	6
Caucasus & Central Asia	-14	7	7
EU-8	-3	-2	5
EU-2	-9	-4	13
Balkans	-7	-2	9

Source: authors' calculations based on World Bank's World Development Indicators

Looking from a historical perspective it is clear that structural changes of the Moldovan economy are dramatic indeed. In 1991 the agricultural sector employed about 49% of the labour force and contributed about 40% to the country's GDP. By 2006 these figures went down to 33% and, correspondingly, 14%. (The year 2007 was a year of particularly harsh weather conditions and contribution of the agriculture to GDP was even lower, 10%). In the same period, the share of services in the total GDP increased from about 20% to 62%. By total share of services in the GDP, the Republic of Moldova is similar to the economies that have joined the EU in 2000s. Reduction of the role of agriculture in total GDP in combination with constant inflows of migrants' remittances has mitigated the external exposure of the Moldovan economy. It is one

of the factors explaining why Moldovan economy managed to survive quite satisfactory the drought in the summer 2007 and the regional floods in summer 2008.

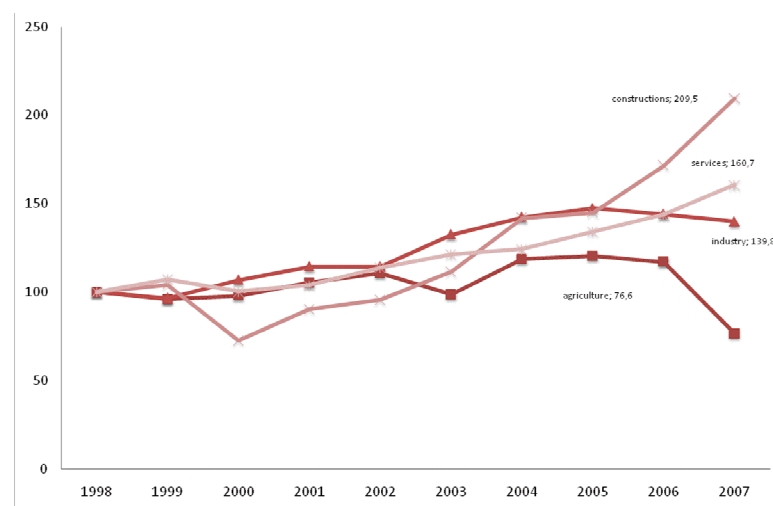
Moldovan agriculture

Agriculture has traditionally been a sector of vital importance for the Moldovan economy. Although the share of the sector in national income, employment and exports has been in fast decline in the last decade, agricultural production is still important for the Moldovan economy. If supported by appropriate policy, the Moldovan agricultural companies can become very competitive by international standards. Thanks to its ideal climate and fertile black soil, Moldovan agriculture supports a wide variety of crops. Moldova is an important regional producer of fresh fruit and vegetables, wines, canned food, sugar, poultry, beef and tobacco products. However, Moldovan agricultural output is still 40% below the pre-transition levels. This means that currently Moldova is not yet fully exploring its natural productive potential and with proper agricultural policy in place Moldova may become in the future a significant regional competitor.

Agricultural sector contracted seriously in the period of 1991-1996, mainly due to the shock of the break-up of the Soviet Union that led to a huge fall in external demand for Moldovan agricultural products and caused a collapse in supply chains. Presently the sector is in not much better shape. The economic growth in Moldova started in 2000, and since then the GDP of Moldova grew on average 6%. The other three major economic sectors (industry, services, and constructions) have expanded healthy, while the agricultural output generally stagnated in the post-recession period (Chart 4).

With one third of the labour force employed in agriculture, the labour productivity in the sector is very low. The average agricultural value added per agricultural worker in 2003-2005 was USD 505. This value becomes more meaningful when we look at comparative figures; the agricultural value added per agricultural worker was USD 25639 in France, USD 14241 in Germany, USD 4693 in Bulgaria, USD 4045 in Czech Republic, USD 3404 in Romania and USD 1627 in Poland for the same period (World Bank, 2007).

Chart 4 Growth of the Gross Value Added by main economic sectors, 1998=100%.



Source: own calculations based on NBS and NBM

This productivity gap is not only a proof of the underdevelopment of the Moldovan agriculture. It is also an indicator of the growth potential of the sector. In many aspects, Moldova has auspicious conditions for agricultural production, trade and development. Following the independence, the adoption of the Land Code and the beginning of the privatization process in the late 1990's, serious steps have been taken for the future development of the sector including the development of a functioning land market, expansion of rural financial services, emergence of private cooperatives, establishment of a nationwide farm service infrastructure and a gradual modernization of the food processing industry. Despite these reforms, presently the agricultural output is only 60% of the 1989-1990 levels.

To some extent the low value of the output is explained by the composition of agricultural production that has changed significantly in the last decade. Low value crops such as grains, cereals, corn and sunflower increased in importance for subsistence, and vegetable production area increased, at the expense of perennial fruit and vine crops. Production and exports of grapes and wine declined sharply through the end of the 1990s, but in 2003 started to recover and new planting started in vineyard areas. Still, production quantities of wine and grapes in 2006 were below the values in the first half of the 1990s. Most of the livestock sector has also been on a long decline since independence. Moldova became a net importer of meat and meat products since 2001. Only poultry has shown substantial growth over the past half decade.

The agricultural reform aimed at the creation of a market-driven competitive climate in the sector by the emergence of a large number of individual farms and various forms of large agricultural enterprises. The expected effect of this competitive environment was that more efficient producers would lead to an increase of overall efficiency, productivity and quality. However, lack of human capital with business knowledge, lack of technical skills and outdated crop production practices in Moldovan agriculture have been the main constraints in achieving these goals.

An important feature of Moldovan economy, rural poverty, is a major constraint for the success of reforms and for the sustainability of economic growth in the economy. Following the end of the Russian financial crisis, GDP growth rose and the poverty rate fell steeply. But since 2002-2003, there has been little progress in reducing poverty and GDP growth started to lose its effect on poverty reduction. In parallel, rural poverty started to rise after second half of 2004 and this upward trend still continues. As mentioned above, lack of technology and human capital in rural areas and the reliance on low-value crops are important factors behind this problem, but inadequate access to finance in rural areas is also a serious constraint for the modernization of the sector and for reducing rural poverty. The main source of finance for the majority of agricultural producers is personal savings and both for individual farmers and for larger enterprises, loans are difficult to access because of high interest rates, rigorous collateral requirements and short terms. This allows for little more than subsistence agriculture and does not facilitate expansion or capital investment. In order to buy new machinery and irrigation equipment, high-performance crop varieties and animal breeds, or make other long-term investments, longer-term commercial credit must be available (MNAF, 2006).

Another important reason behind the inefficiency in Moldovan agriculture is the dualistic structure of the sector. On one hand there are a large number of subsistence farmers, who produce for their own needs and have little interest in investing in their farms because of the lack of market incentives. On the other hand, there are market-oriented large corporate farms that depend primarily on market

access, technology and inputs. The number of these corporate farms is small but they manage 60% of agricultural land. Medium-sized family farms, the backbone of any market agriculture, virtually do not exist in Moldova. Moldovan agriculture is characterized by a much greater concentration of land in large farms than agriculture in market economies (Lerman and Cimpoeș, 2006). Land market is underdeveloped; since 2000, less than 3% of all agricultural land in the country has changed hands through sales (MNAF, 2006). Land prices in rural areas are low, but procedures are complicated and fees are high for land transactions.

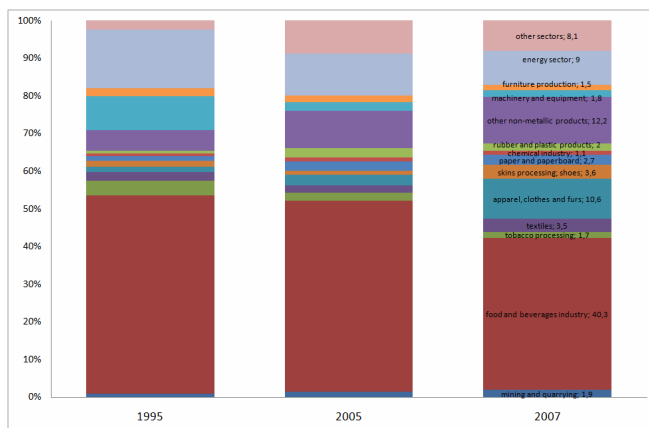
In short, despite its natural advantages and ongoing reforms, the current situation of the sector is far below its potential in terms of productivity and labour incomes, and rural poverty appears as a major problem of the economy. The government is aware of these structural problems and constraints of Moldovan agriculture and published a development strategy document for the sector for the period 2006-2015, aimed at increasing the competitiveness of agriculture, improving technology opportunities, quality and productivity. Availability of an agricultural and rural policy is very important for the transformation of the sector, but implementation of the pre-determined policies is vital. As stated in the policy paper published by the Steering Committee of the Moldovan National Agribusiness Forum, each year there are destabilizing shifts in subsidy programs, agricultural taxation, the regulatory environment and export promotion efforts that discourage investment and are counterproductive to the market-driven growth of the sector. In the agribusiness sector a stable and consistent policy environment is critical for success. This experience points at the necessity for the government to better define for itself the main agribusiness development priorities and target support to priority activities in order to maximize impact and accelerate growth.

Current situation in industrial sector

A specific feature that Moldovan industry inherited from the Soviet times is the small share of "heavy" industry (such as metallurgy or chemical industry) and its almost total reliance on "light" sectors producing consumer goods: food industry, textiles, furniture, cloths, shoes and so on (Here we refer only to the right-bank part of the Moldovan economy; the breakaway Trans-Dniester region is more industrialized but it is outside of the control of the Moldovan constitutional authorities). Provided that there is a reasonable diversification of products and markets, this structure should be treated as an advantage rather than an economic disadvantage. This structure has not changed very significantly over the transition period (Chart 5).

Lower share of heavy industry, implies, among other things, better environmental situation which is critical for developing competitive agriculture and tourism sectors, lower exposure to global crises, as well as lower levels of energy consumption. No surprise, Moldova was less affected by the rising prices for the natural gas from Russia in 2006-2008 in comparison with Ukraine. However Moldova was directly affected by the Russian trade embargo on imports of alcoholic beverages and agricultural products. This produced significant changes in the industrial structure, with textiles, clothes and shoes industries and production of construction materials substituting the declining share of the food and beverages industry.

Chart 5 Share of industrial branches in total industrial production in Moldova, %



Source: NBS

Industrial sector started to grow strongly in 2000 and continued to grow until 2005 (Table 5). In 2006-2007 the sector has declined by about 10%, mainly as result of the impact of the Russian trade embargo on Moldovan food and beverages industry. However, this sub-sector is expected to resume its growth as many companies already managed to diversify their market outlets. The growth potential in this subsector is very large but also depending on the state of the agriculture providing raw materials for the food and beverages industry. Companies in the textiles, apparel and shoes industries are emerging as new "superstars" as they get more integrated with EU clients or suppliers of raw materials and parts. The industry of non-metallic products (represented mainly by production of construction materials) has grown boldly as result of growing demand for construction works. Other "traditional" industrial branches have exhibited constant decline over the last decade. For instance, the tobacco processing, machinery and equipment and other industries have not been able to recover economically over the past decade. This is largely the result of stagnating structural reforms in these branches (lack of privatization, no managerial and functional restructuring).

Table 5 Growth of selected industrial sectors in Moldova, 1995=100%

	1996	1998	2000	2002	2004	2005	2006	2007	Share in total, %, as of 2000
total industry	93,5	79,5	75,7	95,4	119,3	127,7	121,6	119,7	100
mining and quarrying	83,0	75,9	63,9	86,5	135,0	144,8	180	188,1	1.9
food and beverages industry	90,6	71,5	65,5	90,6	113,7	119,4	97,3	89,8	40.3
tobacco industry	112,1	98	115,3	75,2	71,3	68,1	53,3	49,3	1.7
textiles and carpets	101,3	66,3	104,1	153,2	192,4	189,0	229	251,7	3.5
apparel, clothing and furs	99,4	94,2	136,5	160,7	191,2	200,8	208,8	200,5	10.6
paper and paperboards	85,6	87,7	86,2	156,0	305,2	362,6	324,5	378,7	2.7
chemical industry	71,2	72,5	120,3	164,5	156,7	200,8	225,5	246,4	1.1
rubber and plastic articles	107,9	87,8	113,8	218,8	357,2	420,1	522,6	546,1	2.0
non-metallic mineral products	119,8	127,2	176,2	243,2	300,8	362,8	406,7	436,0	12.2
machinery and equipment	68,5	49,3	46,9	63,9	83,6	76,0	76,9	77,2	1.8
energy and water sector	104,2	94,6	57,8	61,9	63,6	70,4	73,9	73,7	9.0

Source: NBS

Financial services

While the banking sector in Moldova has the greatest share in the financial sector of the country, it is still very small compared to other countries. Total assets and credit to

the private sector have doubled since 2001, however at 54% (32.887 mil. lei) and 33% (22577 mil. lei) of GDP respectively³, it still remains modest (see Table 6 below).

Table 6 Moldova main banking system indicators, 2004 – 2008, %

	2004	2005	2006	2007	2008
Depth of the banking system					
Total banking assets/GDP	42	48	52	54	67
Lending/GDP	23	27	31	33	44
Deposits/GDP	30	37	39	40	49
Concentration					
Equity/Total banking system	42	42	40	40	61
Total assets/Total banking system	52	52	48	48	64
Total loans/Total banking system	50	48	46	46	47
Deposits/Total banking system	57	55	51	52	67
Ownership as a ratio of assets					
State ownership	18	19	15	15	15
Majority foreign owned, out of which	34	20	23	23	23
Subsidiaries of foreign banks	4	4	12	22	22
Capital adequacy ratio	31	27	28	27	29
Dollarization					
Foreign currency loans/Total loans	42	37	38	40	40
Foreign currency deposits/Total deposits	42	39	49	48	46

Source: National Bank of Moldova, IMF, Expert-Grup staff computations

Although high capital adequacy and liquidity serve as reliable cushions in cases of possible distress, they also indicate weaknesses in operating and risk management capacity. The average capital adequacy rate continues to be high – 29.2%⁴, although the minimum required level is 12%. According to the IMF evaluation of the banking system, only some 10 percent of rural households have access to bank accounts.

The capitalization level of banks registered a positive growth by 12.7% and reached 5890 mil. lei in the first half of 2008. This reflects a higher consolidation of the banking system and therefore a higher ability to cover potential losses. The current liquidity level on the banking system represents 28.8%, which is in line with the NBM requirements (liquid assets/total assets × 100% ≥ 20%).

Banking opportunities are scarce though, which prompts most banks to avoid specialization. Corporate banking is the main source of revenues, whereas retail banking plays primarily a funding role. The involvement of banks in financial service such as capital markets, leasing, factoring, or insurance is low. Cash is still the major payment instrument in Moldova, particularly for payments among individuals. A positive development though is the fact that in recent years, banks have introduced more advanced payment instruments, such as internet banking and payment card schemes. Currently, 12 commercial banks issue payment cards of international brands (VISA and MasterCard), which are used mostly for cash withdrawals from ATMs. Credit transfers are the major payment instruments among legal entities. However, the named payment instruments are still underdeveloped and far behind the services offered by the banks of the EU member states, especially if compared to the German banks.

An important realization is the development of the Automated Interbank Payment System which operates with modern payment instruments (i.e., electronic credit

³ National Bank of Moldova

⁴ National Bank of Moldova, “Situation of the banking system for the first semester of 2008”, July 2008

transfers) and it allows for fully electronic processing for both inter-bank payments as well as for payments on behalf of third parties. The system is supported by a real time access to the information about balances and payments and the queuing mechanism, allowing participants to efficiently manage their payments in queues. The main drawback though is the fact that the system does not operate 24/24 hours, the last session is set to end at 8pm and thus it limits the operability of the system.

Energy sector

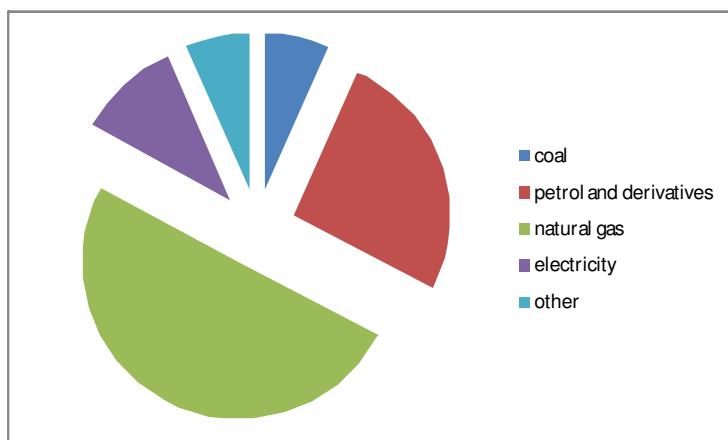
Prior to Moldova's independence its energy sector was an integral part of the Soviet energy sector. Both electrical energy and gas sector were deeply integrated into the Soviet transportation and distribution networks⁵. In the wake of Soviet Union demise, electrical energy production and transportation infrastructure and gas transportation system became property of the Republic of Moldova. However, as the result of the military conflict in the breakaway region of Trans-Dniester significant capacities of the electrical energy production have remained under the jurisdiction of the region's self-declared authorities⁶.

The main energy resources consumed are natural gas, petrol and electricity (see Chart 6). The petrol market is fully liberalized, while gas and electricity markets are not. Moreover, as there some progress is already being made with liberalization of the electricity market, the gas market holding the biggest share in consumption structure, remains fully dependent on imports from Russian Federation. The situation is not likely to change in the foreseeable future, because Moldova has not been part of the European energy projects aiming to provide natural gas from alternative sources in Middle East and Central Asia.

Chart 6 Structure of the main energy supplies, 2006

⁵ Interconnection with Ukraine is provided through 6 power grids 330kV and 9 grids 110kV, with the transport capacity of 1000MW. Moreover, two systems function in parallel as part of former Soviet "South" subsystem. However, Ukraine has implemented the project that allows decoupling of the two systems. One overhead line (400 kV) ensures connection with Romania and Bulgaria, while 3 (110 kV) grids ensure interconnection with Romanian system in "insular" regime.

⁶ As of 1990 the joint production capacity of electricity in the Republic of Moldova (Trans-Dniester included) was estimated at 3000 MW (1200 MW due to wear-out as of 2006) and was sufficient both to cover its own necessities and to supply considerable volume of energy for exports. However, over 80% of capacities are situated in Trans-Dniester region and are not under the jurisdiction of the constitutional Moldovan authorities. For example, the Cuciurgan cogeneration power station (Moldavskaya GRES) which is situated on the left bank of the Dniester river has enough production capacity to cover all Moldova's local needs. It was privatized in 2005 by the Russian state-owned company RAO EES International. Although this privatization is not legally recognized, Moldovan National Energy Regulation Agency has been issuing export authorizations for RAO EES International allowing this company to provide power supply towards Balkans.



Source: Statistical Yearbook, NBS, 2007.

Moldova (the right-bank, hereinafter) has very limited production capacities, mostly in electricity, which cover less than quarter of the local electricity needs. These capacities mostly consist of 3 cogeneration power stations (CET-1 Chisinau, CET-2 Chisinau, CET-Nord Balti), 1 Hydro-electrical power station (CHE Costesti) as well as 10 small cogeneration power stations at the local sugar plants. The general installed power is 440MW, and general available power is 408 MW. Production infrastructure is mostly outdated and needs significant modernization⁷.

Moldova has to rely on imports in order to cover its energy needs. Currently, Moldova imports around 97% of consumed energy. Natural gas is imported only from Russian Federation⁸, while electricity mostly from Ukraine⁹. Most of the petrol derivatives are imported from Romania and Ukraine. It is worthwhile to mention that Moldova buys electricity from Ukraine on below-market rates, meaning that actual accession of both countries to the Union for the Co-ordination of Transmission of Electricity (UCTE) will result in significant increases in the prices Moldovan consumers pay for the electricity.

Main areas of concern in the Moldovan energy sector are the diversification of supply, modernization of infrastructure and strengthening market institutions in the sector.

Transport

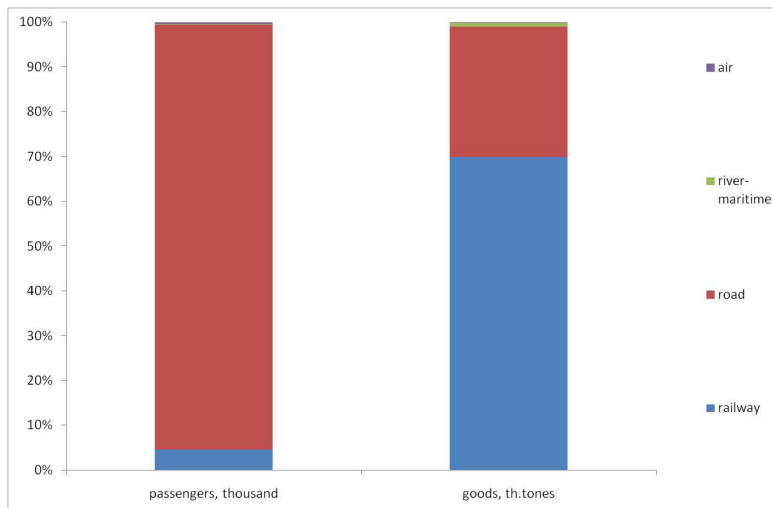
Road and railway transport play major role in Moldova's transports sector: the former is dominant with respect of the number of transported passengers while the latter holds the lion's share in the transport of goods (Chart 7). The shares held by the river and air transports are not significant, but potential of growth is high if necessary investment is done for upgrading infrastructure and buying new carriers.

Chart 7 Structure of transported goods and passengers, % of total

⁷ Moldova's Energy Strategy estimates wear-out at 60-70% rate in the electricity sector.

⁸Russian energy giant "Gazprom" holds monopolist position with respect to supply of the gas. The total length of gas pipes passing Moldova is of 15800 km (as of 2006) through which around 20 bn. m3 of gas are transited annually.

⁹ In fact, since January 1, 2009 Moldova has started importing electricity from the Cuciurgan co-generation power plant (mentioned above) at the prices which are reportedly slightly higher than those offered by Ukrainian suppliers. In any case, this new electricity deal suffers from the same drawbacks that we refer further on.



Source: NBS

As much as passenger transport is considered, the road transport plays dominant role both in the case of Moldova and EU: 95% and 92%, respectively. However, for obvious geographical reasons the situation is quite different in the case of transportation of goods: in EU only 10% of goods are transported via railway, while most of goods are transported by sea (40%) and road (47%). From this perspective, the use of transports in Moldova resembles that of Bulgaria and Romania, where railway transport plays major role as well. Nonetheless, in the context of South-Eastern Europe the role played by railway has been decreasing in favour of road transport.

The number of road vehicles, and especially that of heavy trucks, grew considerably during the last 9 years. This trend demonstrates that some degree of convergence of the Moldovan transport services' sector structure to that of the EU is underway. The new EU members needed around 10 years for this to occur.¹⁰

The Moldovan air transport register lists 192¹¹ aircrafts with 47.4% of them holding navigability certificate. The air fleet is mostly (80%) composed of the crafts produced in former Soviet Union, and which to a large extent do not correspond to the requirements of the International Air Transport Association (IATA). This, to a large extent, limits competitiveness of the airlines from Moldova on the regional and global air services market. There are also significant constraints against entry of foreign capital in the Moldovan air transportation market. The limitations of the Moldova air-transport sector does not allow for the development of the national training schools for the qualified, but ageing, personnel. In order to overcome these limitations, the State Administration of the Civil Aviation recognizes foreign training organization in concordance with requirements JAR -FCL1 and JAR-147. On the basis of bilateral agreements, the distribution of the shares of the Moldova's passenger transport market among local and international airlines is at 75% and 25%, respectively.

The Constraints' Analysis¹² in the land transport sector revealed inadequate development of the road and railway networks with its negative impact over the development of these transport sectors. Moldova fares below regional standards on both accounts. The road networks meet the demands only due to the structure and level of development of local economy, as well as due to low density of the motor

¹⁰ Deutsche Bank Research, EU-Enlargement Monitor, January 2003, p.20.

¹¹ Strategy of development of the civil aviation 2007-2016.

¹² Constraints Analysis, 2007.

vehicles per thousand of inhabitants. As much as the density of the railways per country's area is considered, Moldova is on the par with the newly members from South-East Europe, but well below the level of the Central and West European countries.

Lack of the funds invested in the development of the land transport infrastructure during the last 15 years led to the massive deterioration of the road transport networks. Thus, over 90% of the roads in Moldova are deemed to be in emergency conditions¹³ as compared to 2/3 of roads in Romania in 2004-2005.

In this context Moldova's situation concerning access to the funds needed to overcome this situation is dire. Indeed, the own available resources allow only for partial maintenance of the roads, however, these do not cover entire annual needs. This situation results in continuous deterioration of the roads. The trends in expenditures for renewal and reconstruction of roads display considerable decrease of the capacity to fund road infrastructure.

The annual funds allotted for the development and maintenance of the road networks in the Republic of Moldova amount up to several tens millions of US dollars (for instance the budget allotted in 2004-2007 was of around USD 30 million). These amounts suffice only to maintain quality of some of the national roads, and even less so with regards to local ones. The only hope is to obtain some grants or preferential credits from the donor organizations (World Bank, EBRD) or bilateral partners (EU, USA, etc.). If no funds are invested in the roads infrastructure, Moldova risks becoming totally uncompetitive and being avoided as a transit route by international carriers.

Here is one eloquent comparison. In 2007-2013 Romania is set to obtain Euro 4 billion via the EU structural funds (not taking into account the World Bank or other donors' funds) in order to ensure rehabilitation of its road networks. These funds will help this country to construct 1300 km of new highways until 2013¹⁴. For comparison, Moldova in 8 years (1998-2005) constructed less than 85 km of new roads. On average in the region, infrastructure investments reach up to 8-10% of GDP, while in Moldova these investments hover below 3%.

Future development of the air-transport will depend on the improvements in the living standards of Moldovan citizens, along with the rises in their purchasing power. Air-transport infrastructure is quite limited and entirely depends on the only airport – international airport of Chisinau. There are four more airports - Balti, Cahul, Tiraspol and Marculesti. The airport of Tiraspol is under control of the self-proclaimed authorities of the break-away region of Transnistria. The airports of Cahul and Marculesti are in the process of certification, and only the Balti airport is operational and is used for non-regular flights.

As much as the railway transport is concerned, main barriers are related to the lack of Moldovan enterprises providing maintenance and repair services for the locomotives and carriages resulting in the need to import these services from abroad (Ukraine, Russia).

Macroeconomic stabilization and new challenges ahead

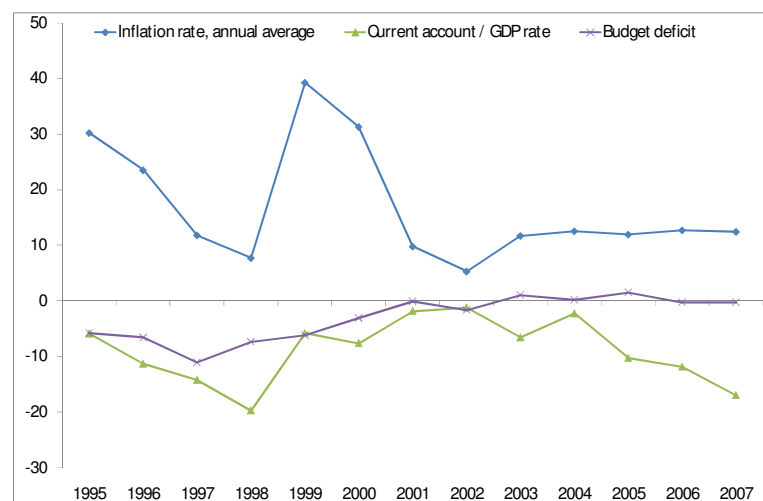
Macroeconomic situation in Moldova over the past 7-8 years has been significantly influenced by the large-scale labour migration. From macroeconomic point of view,

¹³ Constraints Analysis, 2007.

¹⁴ www.pmrpublications.com

the labour migration has exerted two basic effects: 1) it has alleviated pressures on domestic labour market by providing citizens employment opportunities abroad; and 2) it has been associated with large inflows of remittances helping to alleviate poverty and spurring internal consumption. In fact, presently the unemployment rate in Moldova is among the lowest in Europe (5.1% in 2007, as compared with about 8-9% in EU countries). Due to relatively low levels of unemployment, the inflation has been the primary macroeconomic challenge for Moldova in the last decade. Despite successes that Moldova achieved in fighting inflation by mid-1990s, the Russian crisis in 1998 undermined previous efforts of macroeconomic stabilization. Moldova succeeded to stabilize again its economy only by 2002, when the average annual inflation rate went down to 5.3% from 39.6% in 1999 (Chart 8).

Chart 8 Evolution of Moldova's main macroeconomic indicators



Source: Republic of Moldova: Statistical Appendix, IMF office in Moldova

However, afterwards, in 2003-2007 no one-digit annual inflation rates were achieved because the central bank was pursuing two competitive objectives at a time. Maintaining a low inflation rate and competitive exchange rate was a difficult task in face on constantly rising remittances flows. In 2007 the NBM has established formally the price stability as its primary objective however the severe drought and more expensive energy imports has set back the disinflation efforts. Because of growing pressures exercised by the exporters, the bank still maintains a presence in the foreign exchange market in order to mitigate excessive variations of the exchange rate. Despite this, in 2008 the inflation rate for the first time in 6 years reached one-digit figure (7.3%).

After the financial crisis in 1998 Moldovan Government has supported the anti-inflationary policy of the central bank by improving its own fiscal discipline which reflected in the reduction of the budget deficit from the daunting -11.1% of GDP in 1997 to almost nil in 2001. In 2002-2007 the Government ran budget surpluses or small deficits: for instance in 2007 the deficit was as high as 0.3% of GDP. In fact, currently the budget deficit of Moldova government is among the lowest in Europe (Table 7).

Table 7 Comparison of macroeconomic situation

	2003	2004	2005	2006	2007
Inflation rate, annual average, %					
Moldova	11.7	12.5	11.9	12.7	12.4
CIS and Mongolia	12.3	10.4	12.2	9.5	9.7
Central and eastern Europe	10.1	6.3	5.1	5.4	5.6

Euro area	2.1	2.2	2.2	2.2	2.2
General government balance, % of GDP					
Moldova	1,0	0,2	1,5	-0,3	-0,3
CIS	-1,0	-0,3	-1,3	1,3	n.a.
Central and eastern Europe	-3,2	-2,0	-2,3	n.a.	n.a.
Euro area	-3.1	-3.0	-2.5	-1.3	-0.6
Current account balance, % of GDP					
Moldova	-6.6	-2.3	-10.3	-11.8	-14.5
CIS	6.3	8.2	8.8	7.5	4.4
Central and eastern Europe	-4.1	-5.3	-4.6	-6.0	-6.6
Euro area	0.6	1.2	0.5	0.3	0.2

Source: IMF and NBM

The current account deficit restrained to -1.2% of GDP in 2002 while in 1998 it was almost -20%. But afterwards the current account worsened rapidly and reached -14.5% of GDP in 2007 and presently is one of the highest in Europe. Worsening of the current account is mainly explained by the fact the resumption of economic growth was largely driven by migrants' remittances. Paradoxically as it may seem but an eventual reduction of the remittances would probably exert a positive impact on the Moldovan current account by reducing imports of goods for final consumption.

Conclusions

- Initial phase of economic transition was very difficult for Moldova, making it one of the poorest countries in Europe. However, in 2000 the economy started to grow again and presently one can say that in many sectors and branches the transformational recession is over. The major exception is agriculture where the pre-transition level of production has not been recovered yet. However, it is clear that generally Moldova is in much better economic conditions that will help the country to achieve higher level of economic and trade integration with the EU.
- The economic growth of Moldova in 2000-2007 was faster than in the Balkan countries and Central and Eastern European countries on average. This helped the country to narrow its income gap as compared with European countries. Russian trade embargos exerted negative effects on the economic growth and stopped the convergence. However, the growth has remained positive in 2006-2007 and accelerated in 2008. Provided that the demand for Moldovan exports is not collapsing under the current global economic and financial conditions, the economic growth in the country is likely to remain strong and income convergence with EU will resume.
- The investment-consumption structure of the Moldova's GDP is changing, with investment becoming in 2006-2008 more important as growth engine. In 2007 Moldova was on the top fourth position in the group of transition countries as share of FDI inflows to GDP. Investment from EU countries represent currently 80% of the total FDI stock and play an important role in integrating Moldovan companies in the European value-chains and technological-chains.
- Since its independence, Moldovan economy has suffered structural changes that in other countries have taken significantly more time. Economically and socially, the most important trend was the dramatic reduction of the share of agriculture in total employment and GDP. Even if the agricultural sector recovers the pre-transition level of output, the agro-processing and food industry will develop faster and the share of agriculture in GDP and in labour employment will further decline. By share of services in employment and GDP Moldova is already similar to EU countries. Such dramatic economic changes have been inevitably associated with high social costs, high migration and

- rapidly changing cultural patterns in the Moldovan society. Even though it is difficult to estimate these costs, they are probably higher than in other transition countries. However, it is clear that continuation of modernization is necessary for reducing country's economic vulnerability in the long term.
- Macroeconomic situation in Moldova has been significantly influenced by labour migration. Migration has reduced the unemployment rate and has provided the households with necessary resources for consumption. Obviously, this has influenced negatively the current account balance which worsened as result of exponentially growing imports. In this respect, Moldova is probably in the worst situation as compared with the rest of European countries. Despite efforts from the part of monetary authorities to control inflation it still remains an issue of concern in a long-term perspective. The fiscal discipline of the government which has not admitted large budget deficits has supported the anti-inflationary policy of the central bank.

2. Trade policy and trade relations between Moldova and EU

This chapter is devoted to the analysis of the Moldova's trade policy progresses and problems, especially in the context of its commitments of being member of the WTO which Moldova joined in 2001. While having one of the lowest customs tariffs in the world, Moldova faces more significant constraints when it comes to its access to other markets. This chapter also draws attention to the fact that Moldova's trade in general and with EU in particular is affected by behind-the-border technical and administrative barriers. Trade policy of the EU has been subject to significant changes in recent years. It is important to understand the nature and causes of these changes in order to know what EU is ready to offer Moldova in terms of trade liberalization. As shown in this chapter, the EU has unilaterally provided Moldova quite significant trade preferences, however some previous research shows that the growth of Moldova's exports to EU has been driven more by fundamental economic factors rather than by reduction or abolishing of import tariffs. With half of Moldovan total foreign trade being done with EU countries, one can assess that Moldova has already achieved a high degree of trade integration with EU and that the trend is likely to persist in the future.

Moldova's trade policy: progresses and stalemates

General overview of the Moldovan trade policy

Republic of Moldova has a very liberal trade regime. The last World Bank Trade Tariff Restrictiveness Index ranks Moldova on the 12 place out of the 125 countries that have been evaluated. The applied MFN simple average tariff rate of Moldova is 5.2%, the simple average customs tariff for agricultural products is 11.7 %, and the average customs tariff for non-agriculture products is 4.2%. The most significant tariffs remain at sugar (30 percent), meat and poultry (20 percent), dairy products (15 percent), fruit and vegetables (15-20 percent) and cereals (15 percent). It has to be mentioned that import tariffs in Moldova are significantly lower than on average in Central and Eastern European countries (Table 8). Moldovan simple average customs tariff equals that of the EU, is lower in case of agricultural products and higher for non-agricultural products. It has to be noted as well that Moldovan tariff is on average lower than one would expect for a country in the group of low-income of which Moldova is part. Moldova is also considered to have one of the most liberal trade regimes for services which is reflected on its very high overall GATS commitment index¹⁵.

Table 8 Import customs tariffs in some transition countries, 2007

	Simple average	Agricultural goods	Non-agricultural goods
Albania	5.4	7.8	5.0
Armenia*	2.9	6.9	2.3
Azerbaijan	9.2	14.2	8.4
Belarus	11.3	12.8	11.1
Croatia	5.0	11.2	4.0
Georgia	1.4	8.8	0.3
Kazakhstan	7.8	12.5	7.1
Kyrgyzstan	4.8	8.0	4.3
Macedonia	7.8	13.9	6.8
Russian Federation	11.0	14.6	10.5
Serbia	7.4	13.8	6.4
Tajikistan*	7.9	11.4	7.4
Ukraine*	6.9	23.0	4.4
Uzbekistan	15.6	18.6	15.1
Average per countries above	7.5	12.7	6.7

¹⁵ World Bank, "Moldova: Trade Brief", <http://info.worldbank.org/etools/wti2008/docs/brief127.pdf>.

Moldova	5.2	11.7	4.2
EU (including Central and Eastern European countries)	5.2	15.0	3.8

Note: *- data for 2006

Source: WTO, ITC, UN "World Tariff Profiles 2008".

On the other hand, being ranked 111th out of the 125 evaluated countries, Moldova faces one of the most restricted accesses to foreign markets in the world¹⁶. This shows that for Moldova it is indeed critical to make use of any opportunity to improve the access of its exports to foreign outlets, with EU being the most important. The chief goal of the Moldova's trade policy over the last 7 years has been to improve the negative trade balance by promoting national exports and not by imports substitution. Moldova has committed itself to keep the market open for trade partners and advanced in liberalizing trade regimes with its partners in order to make use of its export capacities and produce high value products.

So far, Moldova has concluded bilateral Free Trade Agreements with 9 countries of the Commonwealth of the Independent States (CIS): Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan, Ukraine and Uzbekistan. Moldova also had trade agreements with Romanian and Bulgaria which were dismantled in the wake of two countries' EU accession. (It has to be mentioned that despite abolishing the free trade agreements with these two countries, Moldovan exports to these destinations kept growing rapidly in 2007-2008).

Moldova is also part of multilateral Central European Free Trade Agreement (CEFTA-2) and including Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Montenegro. By 2004 Moldova managed to sign bilateral free trade agreements under the Stability Pact initiative with 7 countries: Bosnia and Herzegovina, Albania, Croatia, Macedonia, Serbia and Montenegro, Bulgaria and Romania (concluded in 1994). By December 2006 the previous bilateral FTAs in the South-eastern Europe were integrated into a single regional initiative, a new CEFTA. In June 2007 Moldova has joined the Memorandum of Understanding for Liberalization and Facilitation of Trade in Southeast Europe. Presently Moldova is active part of the ongoing process of establishing the free trade area of CEFTA scheduled to end by 2010.

Georgia, Ukraine, Azerbaijan and Moldova concluded the GUAM Agreement on Establishment of Free Trade Area on 20 of July, 2002 to achieve the elimination of customs duties and other taxes having equivalent effect, and of quantitative limitations in mutual trade, as well as removal of other obstacles to free movement of goods and services. However, for various political reasons there has been no real progress in establishing a free trade area so far.

The multilateral CIS Free Trade Agreement between Azerbaijan, Armenia, Belarus, Georgia, Moldova, Kazakhstan, Russia, Ukraine, Uzbekistan, Tajikistan and Kyrgyzstan was signed on 15 April 1994 with the main goal to prepare the countries for the first stage in the process of creating an economic union. This free trade agreement was conceived to provide for a gradual cancellation of customs duties, taxes and levies with equivalent effect and eliminate quantitative restrictions and other barriers affecting mutual trade in goods and services. This Agreement never came into force because not all Signing Parties, including Russia, ratified it.

Unilateral trade preferences were offered to Republic of Moldova by the European Union (GSP, GSP+ and presently the Autonomous Trade Preferences), as well as Switzerland, Japan, US, Turkey and Norway. The Republic of Moldova has been a

¹⁶ Idem.

beneficiary of the EU Generalized System of Preferences (GSP) since July 1st, 1999. Under this regime the Moldovan exports to EU enjoyed partial or total exemption from customs tariffs. In January 2006, the EU offered Moldova an extended scheme of preferences (known as GSP+) covering a broader range of products than those included in the previous GSP. Moldovan exports benefit also of some tariff preferences from the part of Switzerland, Japan, United States, Turkey and Norway. Presently Moldova benefits of Autonomous Trade Preferences granted unilaterally by UE starting 1st March 2008, according to the EC Regulation no.55 from 21.01.2008, amendments to the EC Regulation no.980/2005 and the Decision no. 2005/924 of the Commission.

The import tariff policy of Moldova is in line with its WTO tariff commitments; in particular the MFN applied rates shall not exceed the bounded tariffs listed in the WTO Schedule CLI – Moldova (WTO/ACC/MOL/37/Add.1). As shown above, the Moldovan customs tariff is very low by any international standards. More than 50% of the tariff lines are free of any customs duty. Presently there are 3 types of applied customs duties: ad valorem, non-ad valorem/specific and combined rates, with the general trend being to move to more ad-valorem tariffs. Since 2003, Moldova applies also contingency trade measures, in form of provisional safeguards measures for sugar and other related products.

Imported goods are subject to value-added tax (VAT) and excise duties which apply to imports and locally produced goods in a non-discriminatory manner. Moldova applies destination principle of value added taxation. The VAT rates are set by Fiscal Code, Title III (standard rates are 20%, reduced rates – 8% and 5%). Reduced 8% are applied to dairy and bakery products and to some pharmaceuticals. The art.103 and 104 of the Fiscal Code set the exemptions from VAT and VAT at „0” rates for certain type of imports.

Moldova is improving its customs administration system through the implementation of electronic exchange and customs data systems to support the creation of a paperless customs environment. The Customs Integrated Information System of the Republic of Moldova is based on the ASYCUDA World Information System and risk analysis components are being implemented for automated data processing techniques. The progress in the area of customs reform has been acknowledged by the EU and followed by provision of the Autonomous Trade Preferences which have conditioned by palpable progress in customs surveillance and control of rules of origin of goods.

Non-tariff barriers and trade restrictive measures

Despite the progress in reforming its customs service and streamline trade regulations, many bureaucratic hurdles still remain in place. All in all, a number of trade measures with unclear purpose make Moldova a laggard among most of the European countries and its main trading partners in respect to the ease of doing international trade (see Table 9). Even though by level of its customs tariffs Moldova fares as one of the most liberal in the world, because of the behind the border barriers Moldova ranks 18th of the 27 transition countries. Among these barriers one can identify a number of measures related to licensing, certification, marking and labelling requirements.

For instance, according to customs regulations, customs clearance shall be done in the area of legal registration of applicant. Upon request, clearance can be done at the cost of the requesting entity, with the customs body authorization in other places

but also at times other than the office hours of the customs authority. These limitations create a lot of logistical problems to both importers and exporters. The minimum import documentation requirements include: customs declaration, commercial invoice, sales contract, the certificate of origin, the certificate of conformity compliance, and transport documentation. The customs officers are allowed however to request more information and documentation in relation to the imported or exported goods. In case of incomplete documentation the goods to be cleared are placed in temporary storage regime. Many importers complain about complexity of these storage procedures.

Also for customs clearance purposes, the customs officers are authorized to ask the importer, should they consider so, to provide samples and specimens of goods and to perform expert evaluation. Such certificates of expert evaluation can be required for: determination of market price for the customs valuation purpose; confirmation of goods characteristics and determination of HS codes; determination of the quality of the goods, the package, quantity at the stage of depositing or withdrawal goods subject to temporary storage; selection of samples; determination of the good's origin and other similar services. Frequently these kinds of expert evaluations are required for every truck of traded goods.

According to the commitments from the Agreement of Article VII of GATT 1994 (Customs Valuations), Moldova shall use six methods of customs valuation of the imported goods, with the transaction value method as the primary method. However, customs officers still resort to references price lists for monitoring import transactions performed by physical persons¹⁷. The use of reference/minimal or indicative prices is not in line with Moldova's commitments to WTO.

Table 9 Trading accross border indicators, 2007-2008

	Ease of Doing Business Rank	Trading Across Borders Rank	Documents for export (number)	Time for export (days)	Cost to export (USD per container)	Documents for import (number)	Time for import (days)	Cost to import (USD per container)
Georgia	15	81	8	12	1380	7	14	1340
Estonia	22	5	3	5	730	4	5	740
Lithuania	28	26	6	10	870	9	13	980
Latvia	29	25	6	13	900	6	12	850
Azerbaijan	33	174	9	48	3075	14	56	3420
Slovakia	36	116	6	25	1445	8	25	1445
Hungary	41	68	5	18	1300	7	17	1290
Armenia	44	143	7	30	1746	9	24	1981
Bulgaria	45	102	5	23	1626	7	21	1776
Romania	47	40	5	12	1275	6	13	1175
Slovenia	54	78	6	20	1075	8	21	1130
Mongolia	58	156	8	49	2131	8	49	2274
Kyrgyz Republic	68	181	13	64	3000	13	75	3250
Kazakhstan	70	180	11	89	3005	13	76	3055
Macedonia	71	64	6	17	1315	6	15	1625
Czech Republic	75	49	4	17	985	7	20	1087
Poland	76	41	5	17	884	5	27	884
Belarus	85	134	8	20	1772	8	26	1720
Albania	86	77	7	21	770	9	22	775
Serbia	94	62	6	12	1398	6	14	1559
Moldova	103	135	6	32	1775	7	35	1895
Croatia	106	97	7	20	1281	8	16	1141
Bosnia and Herzegovina	119	55	6	16	1070	7	16	1035

¹⁷ Customs Department Order (OSV) no. 361/ 25.09.2007 on monitoring of commercial import transactions performed by physical persons

Russian Federation	120	161	8	36	2150	13	36	2150
Uzbekistan	138	171	7	80	3100	11	104	4600
Ukraine	145	131	6	31	1230	10	36	1250
Tajikistan	159	177	10	82	3150	10	83	4550

Source: WB Doing Business Survey 2008.

The customs authorities also require the original contract with the manufacturer and do not recognize the purchase order or the dealer invoice which are common international practice. Such requirements are excessive as well. To avoid hefty penalties prescribed by the applicable legislation, economic entities are forced to keep track of overly complicated, frequently-changing and unsystematic legislation governing settlement procedures, regulation on the execution and conclusion of foreign trade transactions, customs procedures, certification of conformance and hygienic certification for food-stuffs, and drugs. Import of agricultural products is regulated also by phytosanitary authorizations.

The exports from Moldova are not subject to customs tariffs (except exports of walnuts for which a special duty is paid). But exported goods are subject to many export regulations, licenses and other regulatory tools. Requirements and procedures to be fulfilled by an exporter are still complex and time consuming. The import registration procedure and preliminary operations are applicable to export as well. Minimum set of documentation required for export transaction includes: export-import contract, commercial invoice, transport documentation, the certificate of origin, the certificate of conformity compliance with national standards and the health certificate. The veterinary certificate and the phytosanitary certificate are required as well in case of animal and vegetal origin products.

The export licenses are required for the same products as import licenses, mostly due to safety and security reasons. Not all export licenses are granted in all cases, however. For instance, export licensing procedures for alcoholic beverages and fresh grapes are administered in such a manner as they have restricting effects on exports of wine products. In particular, every exported bottle of wine shall bear a label called "state trademark"¹⁸. When applying for these labels, the applicant shall present the original contract with the importer and the license of production for alcoholic drinks. This requirement has a trade-restrictive effect and a negative impact on development of the export capacities of wine industry and of other industries which are part of wine-producing cluster.

Another problematic requirement for exporters is the repatriation of export earnings. This requirement is quite burdensome for exporters. Many exporters have difficulties in getting payments from their customers and sometime miss the deadline for the repatriation of export earnings. This is associated with high penalties.

Value added tax paid on both domestic and imported inputs is subject to reimbursement upon export of finished goods. However, according to many surveys about 40% of export VAT refund requests are being satisfied on a regular basis and the average time lag of reimbursement (typically, in the form of offsets) is about six months. Also, the refunds typically come as a rule in the form of offsets rather than cash. The exporter survey run by the World Bank showed that only 56% of exporters actually applied for a refund. Exporters incur high costs related to refund delays.

¹⁸ Law no. 1100/2000 and Government Decision no.1255/2006 on circulation of ethylic alcohol and alcoholic beverages.

According to the survey, the average reported cost of delays is equivalent to 9.5% of export earnings, which is a considerable hurdle for exports¹⁹.

In spite of a limited number of products subject to import and export licensing, a serious problem is that traders lack information on specific range of goods covered by an import or export license. In Moldova there is no yet common or sectorial electronic goods nomenclature, harmonized with or based on the international trade HS classification that can be consulted before a decision on trade is made. This leads to inconsistent and discriminatory application of the licensing and authorization of foreign transaction.

Certain licenses and permit requirements are excessive and create significant indirect constraints to trade, for small firms in particular. Many exporters consider that the Moldovan Government requires licenses and permits that only create costs for firms but do not serve any public interest. For example, all the wine producers interviewed within the 2007 Costs of Doing Business Survey mentioned the unnecessary burden imposed by the Agency Moldova-Vin domestic labelling requirements for products sold domestically and the stamp for exports that do not reveal any information on the quality of the products.

Being a WTO member, Moldova has committed that all fees and charges (other than import and export duties) or in connection with imports or exports shall be limited in amount to the approximate cost of services rendered and shall not represent an indirect protection to domestic products or a taxation of imports or exports for fiscal purpose. However an ad-valorem rate, the so called "environmental tax" (0,5-1% of the customs value) is charged for such imports like: Arabic gum, cigars, cigarillos, cigarettes and other manufactured tobacco, asbestos, oils and petroleum oils, as well for petroleum gases, fertilizers, colouring matters, pigments, paints and other chemical products.

There are several regulatory barriers to trade that dent Moldova's export potential in a number of critical sectors. Moldova regulatory environment creates informal barriers to trade that hurt competitiveness of agricultural goods. According to what certain agro-processing firms have declared, their competitiveness is dented by Government barriers to imported agricultural inputs aimed at supporting the domestic producers, even when there is no local production. In addition, farmers have difficulties getting access to imported seeds because they cannot afford to have these inputs tested and certified with Moldovan standards and shall comply with many sanitary and phytosanitary requirements.

Industrial standards are also a problem in many areas. Manufacture firms say that it is very expensive to purchase equipment and spare parts from overseas due to all internal requirement and fees to be paid for customs clearance procedures and certification of conformity, thus reducing their access to more advanced foreign technology that would lead to higher productivity.

In spite of Moldova's commitments to WTO to reduce the range of imported products subject to mandatory certification of conformity, the Nomenclature of goods approved by Government decision no. 1469/2004 is twice larger than the one notified to WTO members. Before this decision was adopted, the importers could choose one out of three available schemes of certification (certification of consignment, certification in series and certification based on long term agreement).

¹⁹ Economically, delayed refunds generate costs via lost opportunity costs of money. For instance, if exporters use credit, the cost will be equivalent to incurred interest.

Now the only option provided by certification bodies is the certification of every consignment of goods. This is a real technical barrier to trade due to which importers bear large costs in terms of money and time. The issue of conformity assessment certificates, in practice, is a very complex process for foreign suppliers and the level of information transparency is very low.

Some regulations come evidently against Moldova's WTO commitments. For instance this refers to the interdiction of trade of: 1) chicken and other animal origin goods that are not packed, labelled, marked without data about the producer and authorised importer; and 2) animal origin products (other preparations) from frozen or refrigerated products (meat sausages and all range of them)²⁰. These regulations are not based on scientific evidences and seem to be in contradiction with WTO common rules. These requirements should be revised and amended as soon as possible in terms of following up WTO commitments and recommendations.

The authorization and the quantitative restriction on import of meat and dairy is another violation of WTO Commitments from Moldovan Government and the restrictive measures for the goods under HS chapter 02, products under 1601 00 and 1602 and dairy products from 040510 and 0406 are applied in a discriminatory, unequal manner regarding the fulfilment of the MFN treatment rules and fair competition on the domestic market²¹. The volumes of so called "quota" are defined monthly by Ministry of Agriculture in correlation with the monthly domestic consumption needs and the authorizations are issued for every contract and every consignment of imported goods. In addition to this, import of meat products can be done only by producers or specialised suppliers, tested by EU, US or Moldovan authorised bodies. The authorization is issued in 15 days and has a validity of only 2 months. The WTO commitment of Moldova of applying import restrictions, quotas and restrictive import licensing only in conformity with the relevant WTO provisions is not respected.

EU trade policy

General policy issues

Starting from the mid 1990s, with the conclusion of the Uruguay Round and the establishment of the WTO, the EU turned its trade policy attention to multilateralism. This steer towards multilateralism was reinforced after Pascal Lamy was assigned as the Commissioner for Trade in 1999. Lamy was an outspoken proponent of multilateralism and during his period the EU maintained an effective suspension on the opening of bilateral or regional negotiations to conclude FTAs, and championed the multilateral trading system. Lamy (2002) explained this policy as one "*pursu[ing] all existing mandates for regional negotiations with vigour and fairness, but not to begin any new negotiations*". (p. 1412) This trade strategy was based on two reasons: first, it favoured the multilateral approach of the Doha Development Agenda (DDA) and the EU did not want to take any initiative that might detract from its completion; and second, the EU had a 'deep integration' approach in FTAs and these agreements were complex and time-consuming to negotiate (Lamy, 2002, pp. 1412-1413). Increasing the number of bilateral agreements has been labelled as a 'spaghetti bowl' of overlapping trade rules that erode the principle of non-

²⁰ Government decision no. 883/2006

²¹ Government decision no.1363/2006 on authorisation of import of meat and other meat products and dairy products

discrimination and raise the transaction costs of doing business, and was assumed to complicate the international trading system as a whole.

However, following the collapse of the Cancun talks in 2003, and eventually the temporary suspension of the Doha Development Agenda (DDA) in July 2006, the EU was forced to reform its trade policy strategy. In the meantime, the US was pursuing FTAs with important trade partners and this reform has been inevitable to avoid trade diversion in favour of the US.

The European Commission revealed its new trade policy strategy in October 2006, under which the EU would pursue bilateral FTAs with major economies in order to secure the market access and competitiveness of European companies in important markets. The new trade policy strategy primarily focuses on the need to identify and remove tariff and non-tariff barriers (NTBs) to ensure market access for goods and services that are important for the European exporters. With the FTAs, the Commission also aims to solve some behind-the-border issues, especially the Singapore issues of investment protection, competition policy, and transparency in government procurement, which cannot be tackled by the DDA. The FTA strategy constitutes a very important part of this trade policy. The EU already has quite a large number of bilateral deals²², but the recent developments in the world trade system made it necessary for the EU to enhance its access to new markets in order to protect and improve competitiveness of European businesses (European Commission, 2006).

The EU's new FTA strategy aims at the highest possible degree of trade, investment, and services liberalization, in addition to a ban on export taxes and quantitative import restrictions. The main targets are regulatory convergence, non-tariff barriers and stronger provisions on intellectual property rights (IPRs) and competition. These trade relations could also include incorporating new cooperative provisions in areas relating to labor standards and environmental protection. In this sense, the EU would also have to take the erosion of its existing trade preferences into account when negotiating FTAs, which could translate into sheltering certain products from tariff cuts (ICTSD, 2006).

After the announcement of its new FTA strategy, the EU has instantly given pace to its efforts for signing FTAs. Primarily targeted FTA partners for the EU were ASEAN and Korea, and negotiations with both of them started in May 2007. Following them, FTA talks with India started in June 2007. In addition, the EU accelerated the FTA talks with the Gulf Cooperation Council (GCC) and Mercosur, which had been suspended before. The EU is also seeking to negotiate FTA agreements with Russia and the Andean and Central American countries. There are also FTA proposals to the EU from several countries including Japan and Pakistan.

EU trade policy on Moldova

After the collapse of the Doha Round of the WTO in July 29, 2008 in Geneva due to the clash of developing countries and the US over agricultural products, the trade policy of the EU which depends on pursuing FTAs with targeted trade partners is expected to expand from countries with big market sizes to potentially important trade partners like Moldova.

Representing only 0.1% of total European foreign trade, the trade relations with Moldova were not of much interest for EU in the past decade. However, as trade is

²² The agreements with the EFTA countries, the customs union with Turkey, the goods agreements with the Euromed countries, the preferential arrangements offered to the sub-Saharan African, Caribbean and Pacific (ACP) countries, and FTAs with Chile, Mexico and South Africa

growing, EU devotes more attention to the issue and encourages closer economic and trade links with Moldova. Due to limited impact that a more liberalised trade with Moldova can exert on European markets, this fact is an important argument that Moldova can leverage in its trade negotiations with EU. Obviously, for Moldova the issue of trade with EU is vitally important. It has to be mentioned that not only trade in goods is important for Moldova, but also trade in services. In 2007, Moldova exported services to EU in value of 200 million USD, while services imported from EU were about 230 million USD.

So far the EU has provided Moldova many unilateral trade preferences for imported goods. Until January 2006 Moldova was eligible for GSP provided by the EU (and a number of other industrialised countries as well) and after that date it was a beneficiary of an extended GSP scheme (the GSP plus). The latter provided for duty-free exports to EU markets of about 22% of the Moldovan agricultural products and 55% of non-agricultural products. Size of tariff reductions was very much dependent on the sensitivity of the product. However, it is generally recognized that the GSP scheme was at the bottom of trade privileges offered by the EU to low-income countries, with preferences given to Mediterranean countries and especially those given to African, Caribbean and Pacific countries being of "higher quality"²³. Also, it is clear that any trade preferences which have been provided unilaterally can be unilaterally suppressed. This refers not only to GSP schemes, but also to the Autonomous Trade Preferences (ATP) that EU granted Moldova in March 2008.

Under the ATP scheme, the EU lifts trade tariffs for all Moldovan products except those clearly specified in the ATP regulation, for which only a quota is tariff-free. In the same time, Moldova has been removed from the list of GSP beneficiary countries. The ATP scheme will expire in 2012. In the GSP+, the range of duty-free goods was wide, but some strategic agricultural export products of Moldova like wines and fresh fruit and vegetables, were not included. The ATP scheme solved this problem and facilitated export of these products to the EU market. However, not all the restrictions have been removed; for instance, in 2008, the quota for duty-free wine delivery from Moldova makes up 60 thousand hectolitres or about 10 million bottles. Moldovan wine exporters have used most of this duty-free quota in a eight months. Similarly, the EU has set duty-free quotas for Moldovan sugar exports to the EU. For 2008 the quota level was 15,000 tonnes, with most of the product going to Romanian market.

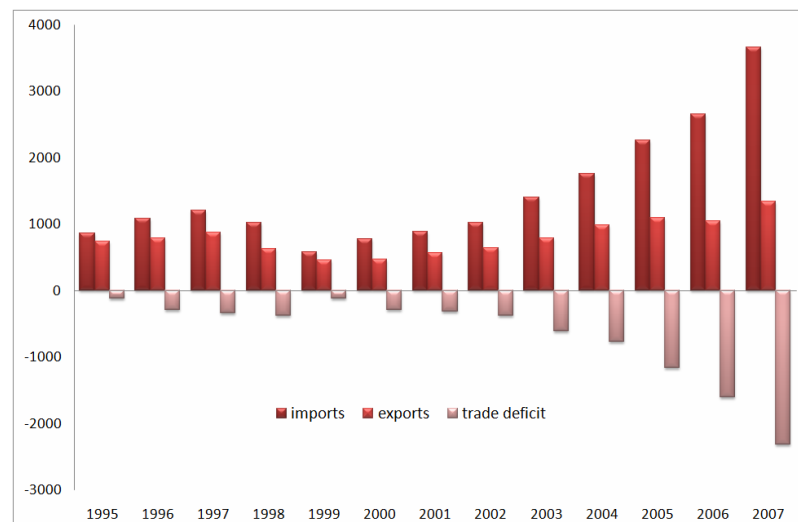
Moldova's trade with EU

Rebalancing the structure of the Moldova's foreign trade

After liberalizing its foreign trade in early 1990s Moldova has speeded up its integration in the global economy. Quite predictably, however, with its economy in deep recession, Moldovan exports and imports followed different paths, the final outcome being soaring trade deficit (Chart 9). During 1995-2007 the imports soared, increasing more than four-fold in only 12 years (from 840.7 mil USD in 1995 to 3689,9 mil USD in 2007). Due to the dire situation of the real sector, which was periodically hit by the economic and climate shocks, in 1995-2007 the domestic exports increased 2.5 times slower than the imports (from 745,5 mil USD to 1341,8 mil USD). During the entire analyzed period only once (in 2001) the exports outstripped the imports, but the trade balance was always in red.

²³ Persson, Maria and Wilhelmsson, Frederik, "Assessing the Effects of the EU Trade Preferences for Developing Countries", June 26, 2006.

Chart 9 Evolution of the Moldovan trade, million USD



Source: NBS

Table 10 Trade shares of industries in Moldova's exports (1994-2007) (% of total)

	Food and live animals	Beverages and tobacco	Crude materials	Minerals and fuels	Animal and vegetable oils and fats	Chemical products	Manufactured goods	Machines, transport equipment	Misc. Manufactures	Goods not classified by kind
1994	40.74	23.35	3.29	2.53	1.97	2.14	7.48	11.51	6.98	0.00
1995	39.70	29.62	5.37	0.87	1.50	1.36	7.06	7.89	6.63	0.00
1996	33.87	37.16	3.48	0.01	0.42	2.27	7.80	6.85	7.66	0.47
1997	51.69	11.08	4.91	1.42	2.69	6.75	17.57	3.82	0.07	0.00
1998	31.41	38.03	4.72	0.00	0.60	1.41	4.53	8.10	10.78	0.42
1999	28.91	30.84	8.28	0.03	0.54	3.09	4.87	7.39	15.89	0.17
2000	21.24	33.56	8.98	0.09	0.83	1.84	6.86	6.22	20.10	0.29
2001	20.62	34.97	7.87	0.02	1.52	1.59	6.20	6.90	20.31	0.00
2002	24.11	33.10	7.59	0.02	2.62	1.18	5.66	5.93	19.79	0.00
2003	21.12	31.81	9.32	0.59	3.66	1.22	7.03	5.24	19.86	0.16
2004	16.52	29.11	10.21	1.57	4.18	1.02	6.31	6.34	21.53	3.21
2005	18.02	29.91	9.66	0.15	3.47	1.73	9.22	5.64	22.21	0.00
2006	19.85	18.69	6.30	0.23	3.32	2.23	14.33	6.48	28.57	0.00
2007	18.80	11.23	10.04	0.34	4.13	2.27	16.14	8.15	28.90	0.00

Source: own calculations based on UN Comtrade

Significant changes happened in the industrial structure of trade flows. Table 10 and Table 11 illustrate the structure of Moldova's trade by presenting the trade shares of industries. Products are grouped according to SITC Rev. 3 classification and represent commodities at the one-digit SITC level (SITC 0 to 9). We see that on the exports side, the most significant fall in the share in total exports is in food and live animals; from about 40% in late 1990s to less than 20% in recent years. On the other hand, manufacturing industry (SITC 6 and 8) has become the dominant industry in exports, replacing agriculture. The sum of manufactured goods (SITC 6) and miscellaneous manufactures (SITC 8) was USD 604 million in 2007, which is 45% of exports. In the same year, the export value of food and live animals (SITC 0) was USD 250 million, and the export value of beverages and tobacco (SITC 1) was USD 150 million.

Table 11 Trade shares of industries in Moldova's imports (1994-2007) (%)

	Food and live animals	Beverages and tobacco	Crude materials	Minerals and fuels	Animal and vegetable oils and fats	Chemical products	Manufactured goods	Machines, transport equipment	Misc. Manufactures	Goods not classified by kind
1994	5.24	1.05	2.90	55.11	0.11	6.74	11.37	12.80	4.59	0.08
1995	5.88	1.86	3.75	45.95	0.11	9.24	14.33	15.21	3.50	0.16
1996	8.29	2.77	3.41	36.57	0.21	9.10	16.82	18.16	4.50	0.18

1997	11.07	3.29	5.38	11.44	0.40	17.78	24.51	20.37	5.68	0.08
1998	5.58	1.99	2.74	31.21	0.14	10.84	16.99	23.68	6.57	0.26
1999	3.76	1.89	2.51	38.82	0.18	9.62	19.53	15.22	8.41	0.05
2000	5.16	7.48	3.03	32.42	0.26	11.26	18.53	14.28	7.52	0.06
2001	7.74	5.45	3.85	26.61	0.25	11.25	21.55	16.21	7.01	0.08
2002	8.97	2.76	3.91	22.28	0.61	13.76	21.50	18.64	7.48	0.08
2003	10.02	2.91	4.84	20.48	0.32	11.82	21.44	19.69	8.43	0.06
2004	8.15	2.82	5.37	20.96	0.36	11.91	20.93	18.31	8.24	2.96
2005	7.90	3.09	4.57	21.15	0.33	13.28	21.90	18.76	8.96	0.04
2006	7.38	3.31	2.34	24.12	0.29	11.85	21.60	19.52	9.54	0.05
2007	8.16	3.08	2.63	21.00	0.27	11.89	21.57	22.18	9.17	0.06

Source: Own calculation from UN Comtrade data

In the early transition Moldova was very slow in rebalancing trade structure and alleviating its overwhelming dependence on CIS markets. In fact, the share of exports to Eastern markets reduced only marginally in 1992-1994 and then started to increase again reaching its apex in 1997 with 70% of all exports going to CIS markets. However, in 1998 the Russian financial crisis served as a first impetus to the Moldovan companies to diversify away from traditional markets and to start exploring new outlets. The Russian embargo imposed in 2005-2006 against imports of alcoholic beverages and products of animal and vegetal origin from Moldova came as a second awakening shock for Moldovan exporters. The Russian trade barriers determined many Moldovan companies to look for new partners in the EU and other countries. Accession of the Central and Eastern European countries to the EU in 2004 and 2007 has also contributed to increasing share of EU in Moldova's statistics. However, besides the trade shocks and "statistical" trade convergence, it has to be mentioned that rapid real growth of Moldova's exports to such countries as Germany, Italy and France is explained ultimately by normal gravitation of the Moldova's trade towards big economic entities. In 1995-2007 Moldova's exports to the EU-15 countries expanded more than four-fold times. This was the highest rate of growth of Moldova's exports as compared with any other geographic destination. As result, in 2007 the overall share of exports to EU reached 50.7%, while the share of exports to CIS countries totalled 31.6% (Table 12). As for the imports, presently the dependence of Moldova on CIS countries is even lower than in case of exports – 36.5%, while the share of imports coming from EU countries is 45.2% of total.

The figures in Table 12 prove that Moldova has already achieved a high degree of trade integration with EU and most probably in the future EU will consolidate its role of main trading partner for Moldova. It has to be mentioned that intra-industry trade has emerged as a key feature of the Moldova – EU trade. Intra-industry trade is dominant in the light industries, such as textiles and footwear. More than 75% of the Moldovan exports to EU go to five countries – Romania, Italy, Germany, Poland and UK. The rate of growth of Moldovan exports to some countries is very impressive: for instance, in 1995-2007 the value of Moldovan exports to France increased 18 times, to Poland – 16 times, to Italy – 9 times and to UK – 6 times.

Table 12 Structural evolution of the Moldova's foreign trade, % of total

	Imports			Exports		
	1997	2002	2007	1997	2002	2007
CIS – west	49.0	38.9	35.7	68.1	53.0	36.0
Caucasus & Central Asia	1.0	1.1	0.8	1.7	1.7	5.1
EU-15	19.3	26.8	25.9	10.3	22.5	26.5
CEE countries joining EU in 2004	7.7	6.7	5.7	3.1	4.3	6.4

Romania and Bulgaria	13.5	10.9	13.7	7.9	9.4	17.8
Other countries	9.5	15.7	18.3	9.0	9.0	8.2
Total	100	100	100	100	100	100

Source: authors' calculations based on NBS foreign trade figures

It is important to note that Moldovan exports to EU have not only grown quantitatively but they have also diversified. The number of positions of products sold to the EU countries increased from 482 positions in 1995 to 589 positions in 2007, whereas the number of positions of goods exported to CIS-West went from 1049 to 731 in the same period (at 4-digit disaggregation level). The Herfindal concentration index of Moldovan exports to EU also improved from 0.40 in 1995 to 0.22 in 2007, while the index for exports to CIS-West worsened from 0.24 in 1995 to 0.50 in 2005. (As result of barriers Russia enacted against imports of alcoholic beverages from Moldova the concentration index decreased to about 0.30 but it the first 9 months of 2008 when exports of wines resumed the index started to grow again.)

As shown in a previous study conducted by Expert-Grup (2008) the trade regimes between the EU and Moldova have had no significant influence on the expansion of the Moldovan exports. Their growth is very well explained within the trade gravity model by fundamental economic and geographic variable (growth of domestic supply, EU demand, and closeness to EU markets). However, the trade preferences also had an important impact as they revealed Moldova's real comparative advantages in production. The structure of exports to EU by products reveals the real advantages that Moldova has at this moment. Textiles and similar products represent almost one third of Moldovan exports to EU. Unprocessed fruits and fruit juices come on the second place, with footwear and parts thereof closing the top of the three most important exports. Current composition of exports is completely different as compared with 1995. Such products as meat of bovine and swine have all but disappeared from the list of exports to EU, mainly because of the inability of Moldovan producers to satisfy food safety requirements. Value of wine exports went from 19 million USD in 1995 to 6 million in 2003 and then resumed again to 17 million USD in 2007 as result of efforts of producers to secure market outlets other than the Russian ones.

Even though no significant economic effects of the EU trade preferences on Moldovan exports was present so far, the situation may change in the future. Indeed, a factor explaining the modest influence of the EU trade preferences is that their impact was shadowed by the more potent economic factors present in the trade gravity model (populations, GDP in the importing countries and GDP in the exporting country - Moldova). Also, some of the CIS countries also have trade preferences for Moldova. However, as geographical structure of the trade evolves towards that predicted by the trade gravity model the impact of the economic fundamental will diminish while the influence of the EU trade preferences will become more important.

Agricultural trade between Moldova and the EU

The European Union has become increasingly important in Moldova's agricultural trade²⁴. In Table 13 and, Table 14 trade values of agricultural products and their shares in total agricultural trade are shown for EU-15, EU-25 and EU-27 in order to see how Moldova's agricultural trade is distributed among the old 15 members of the EU, the Central and Eastern European countries who acceded in 2004 and the two new EU members.

²⁴ For our analysis, we use the broad definition of agricultural products, which covers SITC Rev. 3 commodity codes 0, 1, 21, 22, 23, 24, 25, 26, 29 and 4

Table 13 Moldova's agricultural exports by country and their share in total agricultural exports

	1995	2000	2002	2004	2005	2006	2007
Trade value (USD)							
Ukraine	33,96	17,86	42,77	34,80	64,15	62,42	122,90
Russia	288,74	177,73	204,74	294,49	283,27	90,47	81,70
Belarus	22,89	19,76	35,75	54,65	66,42	68,85	67,71
Romania	71,18	21,93	30,66	28,87	42,94	74,33	56,73
Kazakhstan	7,90	4,18	5,46	13,20	15,12	17,33	30,92
Austria	8,40	3,31	6,42	6,43	9,03	10,25	25,11
Germany	24,05	5,39	9,08	10,59	13,38	12,17	24,13
Switzerland	3,75	0,95	1,67	0,07	6,42	13,47	21,37
France	0,43	7,12	9,90	9,01	13,77	17,47	19,19
Poland	2,11	0,63	1,27	3,28	9,27	12,29	14,07
EU-27	162,68	66,79	99,95	143,94	171,93	172,56	186,42
EU-25	73,99	42,04	66,67	112,15	126,19	93,66	124,17
EU-15	49,64	28,19	45,24	89,95	95,12	57,43	91,26
Share in agricultural exports (%)							
Ukraine	6,2	6,0	10,2	6,1	10,0	13,3	23,7
Russia	52,7	59,9	48,7	51,7	44,2	19,2	15,8
Belarus	4,2	6,7	8,5	9,6	10,4	14,6	13,1
Romania	13,0	7,4	7,6	5,1	5,0	18,0	11,0
Kazakhstan	1,4	1,4	1,3	2,3	2,4	3,7	6,0
Austria	1,5	1,1	1,5	1,1	1,4	2,2	4,9
Germany	4,4	1,8	2,2	1,9	2,1	2,6	4,7
Switzerland	0,7	0,3	0,4	0,0	1,0	2,9	4,1
France	0,1	2,4	2,4	1,6	2,2	3,7	3,7
Poland	0,4	0,2	0,3	0,6	1,4	2,6	2,7
EU-27	29,7	22,5	23,8	25,3	26,8	36,6	36,0
EU-25	13,5	14,2	15,9	19,7	19,7	19,9	24,0
EU-15	9,1	9,5	10,8	15,8	14,8	12,2	17,6

Source: Own calculation from UN Comtrade data

Table 14 Moldova's agricultural imports by country and their share in total agricultural imports

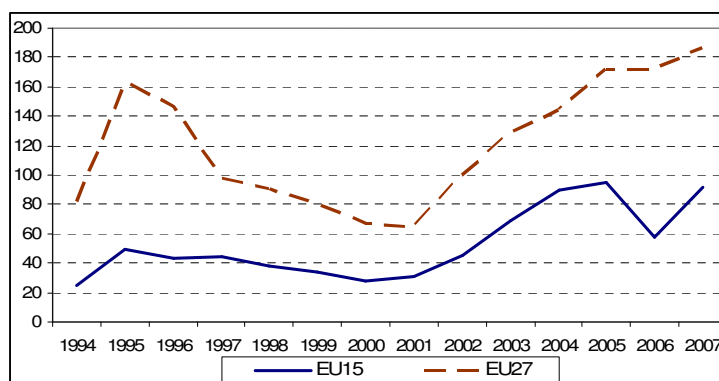
	1995	2000	2005	2007
Trade value (USD)				
Ukraine	14,41	10,34	112,23	171,13
Russia	14,14	3,66	54,00	78,48
Romania	8,29	9,24	21,22	30,28
Turkey	0,50	1,82	10,57	20,92
France	0,29	5,26	14,91	17,98
Germany	9,39	36,62	10,24	17,72
USA	5,59	11,28	22,13	13,61
Poland	0,30	7,22	15,52	11,32
Brazil	0,03	0,14	11,62	10,15
Hungary	0,58	2,23	8,40	8,98
EU-27	42,58	81,06	114,12	148,41
EU-25	23,97	67,60	89,16	115,31
EU-15	19,94	54,73	55,54	81,64
Share in agricultural imports (%)				
Ukraine	16,1	8,6	31,5	33,6
Russia	15,8	3,1	15,2	15,4
Romania	9,3	7,7	6,0	6,0
Turkey	0,6	1,5	3,0	4,1
France	0,3	4,4	4,2	3,5
Germany	10,5	30,5	2,9	3,5
USA	6,2	9,4	6,2	2,7
Poland	0,3	6,0	4,4	2,2
Brazil	0,0	0,1	3,3	2,0
Hungary	0,7	1,9	2,4	1,8
EU-27	47,5	67,4	32,1	29,2
EU-25	26,8	56,2	25,0	22,7
EU-15	22,3	45,5	15,6	16,0

Source: Own calculation from UN Comtrade data

In 1995, Moldova exported about USD 50 million of agricultural products to EU-15. Germany, alone imported USD 24 million of these products (USD 22.7 million of this value was from fruit juices). Agricultural exports to CEE-10 countries valued about USD 24 million, where more than USD 18 million of this amount was to Baltic states. Agricultural exports to Bulgaria valued about USD 17.5 million. Romania was a very important importer of Moldovan agricultural products in 1995, with an export value of USD 71 million.

As seen in Chart 10, from 1995, agricultural exports to the EU decreased and reached the lowest level in 2000. After that year, it generally followed an upward trend. In 2007, Moldova exported USD 186 million of agricultural products to EU-27, which was 36% of Moldova's agricultural exports. In terms of countries, Romania was the biggest importer of Moldovan agricultural products among EU member states with USD 56.7 million. Austria, Germany, France and Poland were also important export destinations of agricultural goods in 2007.

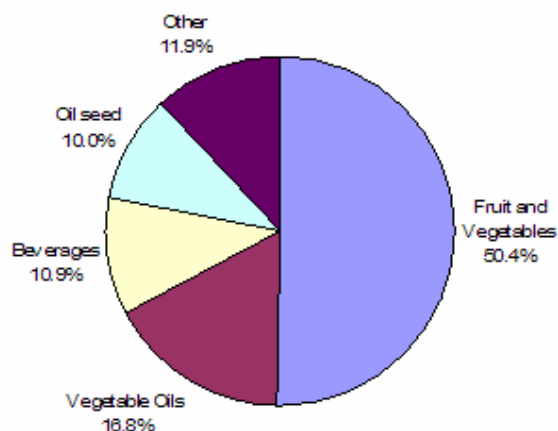
Chart 10 Moldova's agricultural exports to the EU (1994-2007)



Source: based on UN Comtrade

As seen in Chart 11 below, agricultural exports of Moldova to EU-27 mostly consist of fruit and vegetables (SITC code: 05). Vegetable oils, beverages and oil seeds are also important commodity groups in agricultural exports to EU-27. Table 15 extends the analysis of the exported products to EU-27 and shows the top-ten agricultural products (according to four-digit SITC classification) that were exported to EU-27 in 2007. The fruit juices, nuts, sunflower seed oil, wine and sunflowers are the most significant products.

Chart 11 Composition of Moldova's agricultural exports to the EU-27 (2007)



Source: based on UN Comtrade

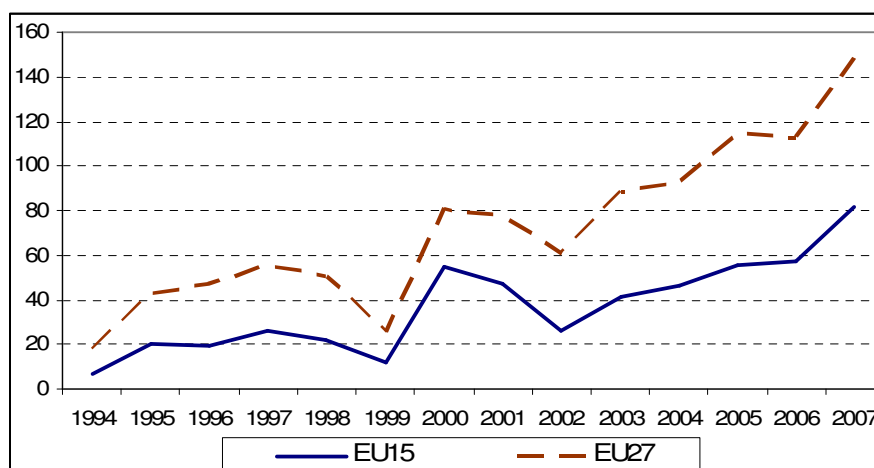
Table 15 Main agricultural products exported to the EU (2007)

SITC Code	Commodity	Trade Value (million USD)	Main Export Destinations
0599	Fruit juices (exc. citrus)	41.6	Austria, Germany, Poland
0577	Fresh and dried nuts	41.3	France, Greece, Germany
4215	Sunflower seed oil	27.7	Romania
1121	Wine of fresh grapes	17.1	Poland, Romania, Czech Rep.
2224	Sunflower seeds	15.3	Romania
0579	Dried fruit, nes.	3.4	Germany
0581	Jams, fruit jellies, marmalades	2.7	Czech Rep.
2111	Bovine hides and skin	2.2	Italy
2226	Rape, colza, mustard seeds	2.1	UK, Hungary
4211	Soya bean oil	2.0	Romania

Source: Own calculation from UN Comtrade data

In terms of agricultural imports, the EU has a significant role; about one third of agro-food products that Moldova imports come from the EU countries. Chart 12 illustrates Moldova's agricultural imports from the EU-15 and EU-27.

Chart 12 Moldova's agricultural imports to the EU (1994-2007)

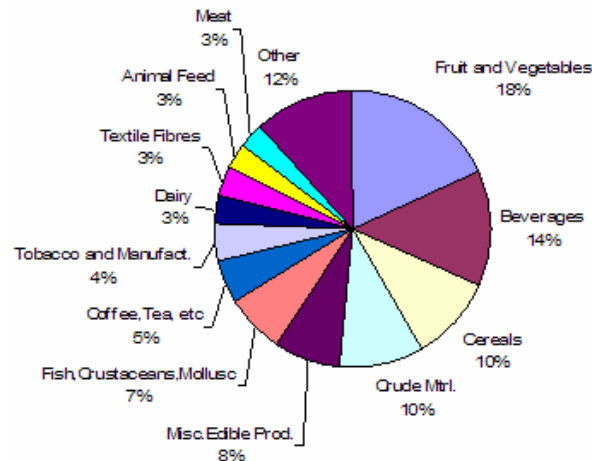


Source: based on UN Comtrade

As seen, trend of imports has been in a continuous rise since 2002, and in 2007 agricultural imports from the EU-27 reached USD 148 million. Moldova was a net exporter against the EU during the 1990s. However, it lost this position in 2000 and 2001 when the agricultural imports of Moldova from the EU exceeded its agricultural exports to the EU. Moldova regained its net exporter position in 2002 and still protects it. In 2007, Moldova's trade surplus vis-à-vis the EU-27 in agricultural products is about USD 32 million. However, it's worth noting that this surplus is only USD 2.5 million when we consider EU-25 as the trading partner. Thus, we can say that the bulk of Moldova's trade surplus in agricultural products comes from its net exports to Romania and Bulgaria. Indeed, net agricultural trade to Romania was USD 26.4 million in 2007.

As Chart 13 below shows, agricultural imports of Moldova from the EU are more diversified than its agricultural exports. Among its USD 148 million of imports from the EU-27 in 2007, 18% was fruit and vegetables, 14% was beverages, 10% was cereals and cereal preparations and 10% was agricultural crude materials.

Chart 13 Composition of Moldova's agricultural exports to the EU-27 (2007)



Source: own calculations based on UN Comtrade

Table 11 shows the most imported agricultural products by Moldova from the EU-27 in 2007. The main items are mineral and non-mineral waters imported from Romania, malt and malt flour imported from Czech Republic, food preparations imported from Germany and Romania and spirits imported from France.

Table 16 Main agricultural products imported from the EU (2007)

SITC Code	Commodity	Trade Value (million USD)	Main Import Destinations
1110	Waters	11.8	Romania
0482	Malt	6.6	Czech Rep.
0989	Food preparations, nes	6.5	Germany, Romania, Italy
1124	Spirits	6.4	France
0567	Prepared vegetables nes	6.1	Spain, Romania, Greece
2925	Seeds	6.0	Germany, Belgium, Netherlands
0342	Frozen fish	5.5	UK, Netherlands
0577	Nuts	4.7	France
0579	Fruits nes	4.4	Greece
1211	Tobacco	3.4	Greece, Bulgaria

Source: Own calculation from UN Comtrade data

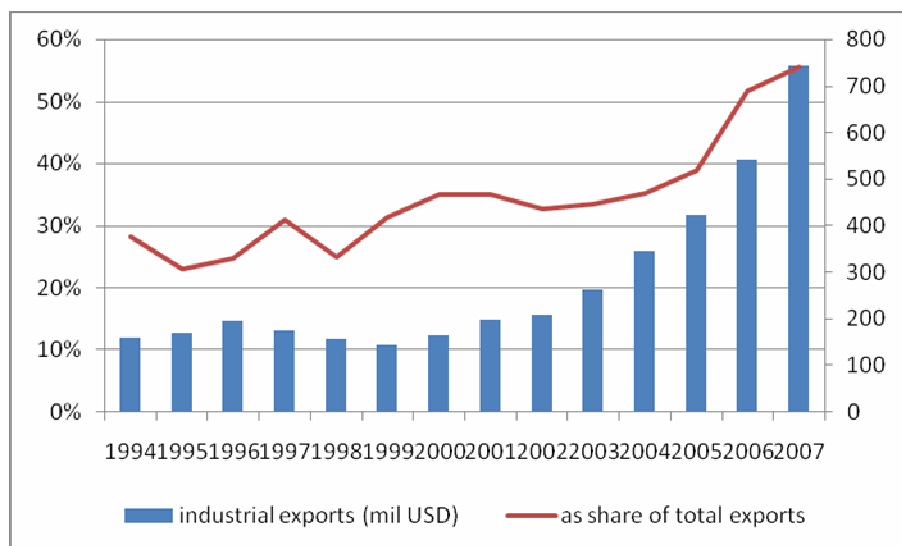
An analysis of the industrial exports of the Republic of Moldova

During transition period structure of Moldovan industrial exports followed the path of the development of the economic sectors. Thus, the exports of industrial products from the Republic of Moldova increased 3.67 times since 1994 compared to 34% increase in agricultural exports. Therefore, industrial exports account for the largest share of exports, which has increased from 28.11% in 1994 to 55.47% in 2007 (Chart 14).

The most important evolution was the increase in exports of miscellaneous manufactured articles and manufactures goods. With less than 7% of total exports in 1994, miscellaneous manufactured articles have become the leading industrial export of Moldova since 2002 with a share of 28.9% in 2007. This was mainly the result of foreign investments in textile industry that work "in Lohn". More than 60% of the

exports of the group are represented by articles of apparel and clothing accessories. In the group of manufactured goods, the most important increase occurred in exports of non-metallic mineral manufactures and manufactures of metal that topped the exports. (Table 17)

Chart 14 Evolution of Moldovan industrial exports and their share in total export



Source: Comtrade Database and authors calculations

Table 17 Leading industrial exports from Moldova, 2007

SITC code	Commodity	Value of exports (mil. USD)	share of industrial exports	share of total exports
84	Articles of apparel and clothing accessories	238.32	32.02%	17.76%
66	Non-metallic mineral manufactures	57.27	7.69%	4.27%
69	Manufactures of metals	48.85	6.56%	3.64%
85	Footwear	39.93	5.36%	2.98%
77	Electrical machinery, apparatus and appliances	39.24	5.27%	2.92%
65	Textile yarn, fabrics, made-up articles	37.46	5.03%	2.79%
89	Miscellaneous manufactured articles	31.60	4.25%	2.36%
67	Iron and steel	31.19	4.19%	2.32%
82	Furniture, and parts thereof	30.68	4.12%	2.29%
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard	23.24	3.12%	1.73%
87	Professional, scientific and controlling instruments and apparatus	22.89	3.07%	1.71%
74	General industrial machinery and equipment	21.84	2.93%	1.63%
83	Travel goods, handbags and similar containers	17.49	2.35%	1.30%
72	Machinery specialized for particular industries	17.34	2.33%	1.29%

Source: Comtrade Database and authors calculations

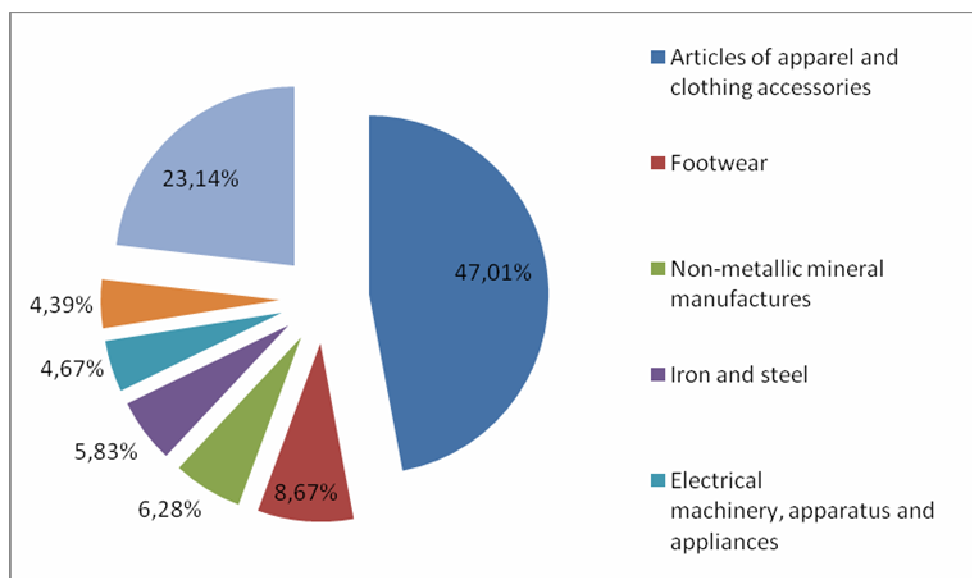
There are several products, where Moldova lost its export position during the transition period, where not only their share in total exports has decreased, but also the value of exports declined significantly. These are exports of telecommunications and sound-recording and reproducing apparatus and equipment and organic chemicals that decreased by 78% and 90% correspondingly since 1994.

Opposed to agricultural exports, industrial products are mostly exported to EU countries, which is the destination for 60% of industrial exports. 32% of industrial exports go to CIS countries and other 8% to other countries. This is a natural evolution in the context of widening and exploring new markets in the transition period, but

also a result of increased European investments in export oriented industries in the Republic of Moldova.

There is a significant difference in products exported to EU and products exported to CIS countries. While EU countries import most of the articles of apparel and clothing accessories, footwear, manufactured goods from iron and steel, travel goods, handbags and similar containers; CIS countries are the main importers of manufactures of metal, textile yarn, fabrics, made-up articles, paper, paperboard and articles of paper pulp, of paper or of paperboard, general industrial machinery and equipment, road vehicles, medicinal and pharmaceutical products. Therefore the EU imports from Moldova are mainly concentrated in the manufactured goods and manufactured miscellaneous articles (group 6 and 8 in SITC Rev. 3 classification), where also the most important foreign investments are done by EU countries (Chart 15).

Chart 15 Structure of industrial exports to EU 27, 2007, SITC Revision 3, at 2-digit disaggregation level



Source: Comtrade database and authors calculations

Most of the industrial exports of Moldova go to EU 15 and Romania and Bulgaria (Table 18). The share of EU 10 in the exports of Moldova was low in the first decade of transition and it increased only with their accession to the EU in 2004 (Table 19). Today, Poland has become the most important importer from EU 10 countries, accounting for 63% of exports. It is interesting that the share of exports to the Baltic States has decreased in spite of stronger trade relation before the collapse of the Soviet Union.

Table 18 Main industrial exports to EU 27 and main countries of destination, 2007

SITC Code	Commodity	Trade Value (mil. USD)	Main countries of destination
8514	Other footwear, lthr. uppers	23.51	Romania, Italy, Germany
6761	Bar, rod iron, hot-fd, coil	22.91	Poland, Slovakia, Bulgaria
8421	Overcoats, other coats etc.	21.34	Italy, Germany, Romania
6651	Containers, of glass	20.36	Romania, Bulgaria, Hungary
8414	Trousers, bib and brace overalls, breeches and shorts, men's or boys'	19.44	Italy, Poland, Romania
7731	Insultd wire	17.53	Romania, Italy, Czech Republic
8454	T-shirts, singlets and other vests, knitted or crocheted	17.30	Italy, United Kingdom, Netherland
8447	Blouses, shirts and shirt-blouses, women's or girls', knitted or	16.51	United Kingdom, Romania, Italy

	crocheted		
8426	Trousers, bib and brace overalls, breeches and shorts, women's or girls',	16.14	Italy, Germany, United Kingdom
8411	Overcoats, outerwear	12.69	Italy, Romania
8427	Blouses, shirts and shirt-blouses, women's or girls', of textile material	12.10	United Kingdom, Romania, Belgium
8453	Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted	11.99	Italy, Bulgaria, Romania
8413	Jackets and blazers, men's or boys', of textile materials, not knitted	10.75	Italy, Poland, Romania
8442	Suits, dresses skirts etc	10.32	Italy, United Kingdom, Romania
6415	Paper, paperboard, unctd, bulk	9.64	Romania, Bulgaria, Poland

Source: Comtrade Database and authors calculations

Table 19 Structure of exports to EU 27

	1995	2000	2005	2007
EU27 (mil USD)	55.73	91.53	257.01	447.11
EU 15 (share in EU 27)	41.18%	76.32%	58.14%	52.52%
EU 10 (share in EU 27)	5.98%	6.45%	15.48%	11.81%
EU 2 (share in EU 27)	52.85%	17.23%	26.38%	35.67%

Source: Comtrade Database and authors calculations

As regards, Romania and Bulgaria, the immediate neighbourhood and historical relations with Romania made it one of the most important trade partners in the beginning of transition. This development was also facilitated by the Free Trade Agreement between Romania and the Republic of Moldova since the beginning of transition and a preferential trade agreement between Bulgaria and Moldova. As these two countries joined the EU and the free trade agreements were abolished it was expected that the exports from Moldova to the two countries would decrease. Surprisingly, they have further increased and also their share in total EU exports has increased to 35% in 2007. This is very important in the context of the negotiation of the free trade agreement with EU, as we can see that not the free trade agreement is the most important step toward the of exports to EU, but rather other factors as competitiveness of products on the domestic market of the countries.

Conclusions

- Moldova has a statutory liberal trade regime, both on the export and the import side. Import tariffs are low, while exports tariffs are absent. The VAT and excises are generally applied equitably towards imports and domestic output. Moldova has opened so far its market to a number of partners, being ranked as one of the most open countries in the world. In fact, it has the most extended network of trade agreements in the Central and Eastern European region. This is a good starting position while heading for a free trade agreement with EU. This is even more important from the point of view that Moldova faces much more restrictive conditions of international markets than it offers to its partners. Since Moldovan economy is overly dependent both on free access to exports markets and free supply of imported inputs, the country needs to improve further status of its trade relations especially with the EU and to raise them at least on the par with trade relations with CIS and Balkan countries.
- However, behind-the-border technical barriers affect Moldovan exports as well. Important constraints for Moldovan exporters include access to

knowledge, shortage of skilled labour, inadequate infrastructure and logistics services. Access to knowledge regarding technology and potential foreign clients is a commonly cited constraint by the exporters, especially in higher value-added markets. Particularly in the textile and footwear sectors, firms experience shortages in semi-skilled labour due to the 'grey' economy and migration. Finally, trading across borders in Moldova is considered much harder than in neighbouring countries and its trading partners due to weak transport infrastructure (particularly railways), inadequate logistics services, excessive customs procedures and inconsistent and frequent changes of trade regulations.

- Besides, there are a number of institutional constraints limiting the growth potential of Moldovan exports. Many cumbersome regulatory procedures affect the international trade both directly and indirectly. From this perspective Moldova fares poorly in comparison with the European and transition countries. In the context of a potential Deep and Comprehensive FTA with EU, it is highly necessary for Moldova to improve the trade institutional environment in order to make full use of the trade preferences and for the Moldovan companies to withstand competition with European companies.
- Over the last decade, Moldova has already achieved a high degree of trade integration with EU. In 2007 slightly over half of Moldovan exports went to the EU countries and just almost third went to the CIS. In case of imports, the EU share equalled 45.2% as compared with 37% for the CIS countries. This structure is in line with what gravity trade models predict for Moldova, however the share goods exported to the EU countries can further increase if Moldova manages to make use of existing and future trade preferences.

3. Impact of a simple Free Trade Agreement between Moldova and the EU

This chapter shows how a simple Free Trade Agreement would affect Moldovan economy. The economic simulations are based on a computable general equilibrium (CGE) model of the Moldovan economy that captures both direct and indirect effects of a Free Trade Agreement. The authors have looked at three scenarios in order to gauge the magnitude of a simple FTA impact under different conditions. The first scenario assumes an increase of fob export prices of Moldovan exports to the EU to simulate the elimination of EU tariffs on imports from Moldova. Under the second scenario all Moldovan tariffs on imports from the EU are eliminated. The last scenario combines the assumptions of the other two scenarios. Also, the possible dynamic effects of a Deep and Comprehensive FTA between Moldova and EU are evaluated based on existing econometric research regarding the long-term effects of regional integration and institutional convergence on economic growth and welfare.

A Free Trade Agreement with EU would affect the Moldovan economy in two major ways. First, the EU would eliminate tariffs and quotas on its imports from Moldova, improving the competitiveness of Moldovan exports in the EU market. In practice, this would have little immediate effect as import tariffs have already been suspended under the EU's present regime of Autonomous Trade Preferences for imports from Moldova; the benefits would be concentrated on sectors whose exports to the EU are currently constrained by quotas. Second, Moldova would eliminate its own tariffs on imports from the EU. While this move would put imports from the EU on an equal footing with imports from CIS countries, it would also reduce government tariff revenue unless compensatory measures are taken.

Taken together, these measures would cause the Moldovan economy to become more integrated with the rest of the world. Total exports and imports would tend to grow, while (correspondingly) local production for the domestic market would tend to decline. Export growth would be concentrated in a small number of sectors that are already strong exporters. In this section, we use a simple simulation model of the Moldovan economy to illustrate the likely direction of the resulting structural change in the Moldovan economy. It should be noted that this computable general equilibrium (CGE) model is not meant to forecast structural change after the implementation of an FTA precisely; there are far too many other determinants of the evolving sectoral structure of the Moldovan economy that are not captured by this model. Rather, this simulation exercise is intended to provide a general sense of the direction and orders of magnitude of major FTA-induced changes.

Furthermore, a Moldova-EU FTA would promote and sustain economic growth in Moldova through several channels of impact. Enhanced specialization of the Moldovan economy would promote economic efficiency and strengthen incentives for investment; lower tariffs would enhance competition among foreign and domestic suppliers in Moldova and reduce prices; and a formal agreement with the European Union would help to strengthen economic institutions in Moldova and improve the business climate. However, all these effects are difficult to quantify through formal modelling; within the limited scope of this study, we therefore rely on comparisons with other integration projects to assess the possible order of magnitude of additional economic growth through a Moldova-EU FTA.

Key features of our simulation model

A Moldova-EU FTA would not only affect some sectors and trade flows directly, but would also lead to changes in macroeconomic variables such as the real exchange rate that will have further repercussions throughout the economy. Therefore, our simulations rely on a computable general equilibrium (CGE) model of the Moldovan economy that captures both direct and indirect effects. Our model is an extension of the IFPRI standard model that is fully documented in Lofgren et al. (2002). This section gives an overview over the structure and assumptions of our model; the Appendix provides additional pertinent information on technical aspects of CGE models.

Since the Moldovan economy is small compared to its main trading partners (EU, CIS), we do not need to account for feedback effects from those trading partners back to the Moldovan economy (for example, any increase in EU GDP due to a Moldova-EU FTA would be too small to have a noticeable impact on demands for imports from Moldova). Therefore it is appropriate to use a single-country model for Moldova that assumes (i) perfectly elastic demand for Moldova's exports and (ii) perfectly elastic supply of Moldova's imports (i.e. Moldova can export and import practically "unlimited" amounts at given world market prices).

Comparative-static CGE models as in this study are used to analyze the effects of policy changes and other shocks throughout an economy over the medium term.²⁵ The models apply to the time period it takes for an economy to move from one equilibrium to another, in response to a policy change (e.g. a regional free trade agreement) or other shock. This may be viewed as a medium-term solution in the sense that the initial disequilibrium following the shock has disappeared, but dynamic effects (such as additional investment in response to trade liberalization) have not yet set in. While it is possible to construct "dynamic" models that include an adjustment mechanism for the capital stock, such models require additional strong assumptions

The database for the CGE model is a social accounting matrix (SAM) for a given base year. The SAM is a square matrix that describes all commodity and monetary flows among the economic agents in an economy at a suitable level of aggregation (production sectors, households, enterprises, government, the "rest of the world"). The SAM typically combines information from input-output accounts, national income and product accounts, household budget surveys, labor force statistics, and fiscal statistics, among other data sources. Our model for Moldova includes 15 primary, manufacturing, and service sectors (where agriculture is disaggregated into commercial enterprises vs. family farms with household consumption), 14 commodities, 6 factors of production, 6 household types, and 4 trading partner regions (see Table 20 for a list of sectors and trading partners). As such, our model offers a sufficiently rich picture of the Moldovan economy. While it would be useful to disaggregate the agriculture and food processing sectors further (for example, into plant vs. animal products), the available national accounts data do not permit this. The model is based on 2004 data because at the time of writing these were the most recent available.

Simulation results based on CGE models depend heavily on the assumptions that are made about the behaviour of the economic agents. Technically speaking, these assumptions concern functional forms (such as Leontief vs. CES production functions), underlying parameters (such as substitution elasticities in production and

²⁵ The general description of CGE models draws on Fageräs (2004).

demand functions), and macroeconomic balancing mechanisms. Many CGE models, including our model for Moldova, are real side models without explicitly modelled asset markets and with neutral money. Moldova is viewed as a small open economy; the prices of Moldovan exports to and imports from the four trading partner regions (EU26, Romania, CIS, rest of the world) are assumed to be given in local currency.

The "closure rules" for a CGE model define the mechanisms by which the three macroeconomic balances are determined: (i) the current government balance; (ii) the current account balance, and (iii) the savings and investment balance. In our simulations, we assume that total investment, "government savings" (i.e. the surplus of current government revenue over current expenditures, not counting investment expenditures), and the current account balance are constant in real terms. The necessary adjustments to generate an economy-wide ("general") equilibrium under these conditions occur in household and enterprise savings rates, direct tax rates, and the real exchange rate. These assumptions render our various scenarios directly comparable.

Table 20 Moldova: international trade by sector and partner region, 2004, USD million

	Export					Imports				
	EU(26)	Rom.	CIS	Other	Total	EU(26)	Rom.	CIS	Other	Total
Primary sectors	94,4	17,5	68,4	25,7	206,0	23,4	1,5	128,3	11,7	164,8
Food, beverages, tobacco	45,2	12,5	391,9	11,0	460,5	37,3	17,3	73,8	32,0	160,5
Textiles, clothing, leather goods	135,7	23,5	11,5	31,8	202,5	101,2	15,0	4,8	41,0	162,1
Wood, paper, printing, furniture	3,1	11,0	24,6	1,8	40,5	56,7	20,4	53,2	13,9	144,3
Chemical, metallurgy, recycling	14,5	16,5	18,5	8,9	58,4	142,9	83,0	312,2	43,3	581,4
Machinery, equipment	11,2	5,8	45,4	2,8	65,2	262,9	17,8	118,8	93,3	492,8
Electricity distribution	0,0	6,6	0,0	0,0	6,6	0,0	0,0	184,1	0,0	184,1
Construction	2,7	0,1	0,1	1,3	4,3	0,6	0,6	0,3	1,3	2,9
Wholesale and retail trade	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Hotels and restaurants	6,7	0,2	2,7	13,4	23,0	5,7	1,7	7,9	11,3	26,5
Transportation	31,6	12,9	63,8	31,6	140,0	14,5	4,2	17,9	14,5	51,1
Communication services	12,7	4,7	14,8	12,7	44,9	4,3	2,8	5,1	8,6	20,8
Financial, professional, other private services	4,1	0,9	1,2	4,1	10,3	4,2	0,6	1,6	8,4	14,8
Public administration / NGOs	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Public services and private households	0,1	0,0	0,2	0,5	0,8	0,0	0,0	0,1	0,4	0,5
Total exports	362,0	112,3	643,1	145,6	1262,9	653,8	164,9	908,1	279,7	2006,4

Source: own calculations based on Comtrade

Simulation results

We undertake three separate simulations to assess the impact of a Moldova-EU FTA: (i) increase fob export prices of Moldovan exports to the EU by 5% to simulate the elimination of EU tariffs on imports from Moldova; (ii) eliminate all Moldovan tariffs on imports from the EU; (iii) both these effects together. Scenario (i) broadly reflects the current situation with the EU's Autonomous Trade Preferences which eliminate tariffs on most EU imports from Moldova, with only a few tariff quotas remaining on agricultural products that the EU considers sensitive. Scenario (ii) reflects the main step that Moldova would have to take in order to implement an FTA with the EU. Since the simulation are comparative-static, the simulated effects represent the long-run changes that would be observed after the Moldovan economy has fully adjusted to the changes in policy parameters.

In Scenario (i), higher fob prices for Moldovan exports to the EU lead to structural change in the Moldovan economy broadly as expected. Total exports grow by around 3% in real terms, with higher growth to the EU and declining exports other regions (Table 21). Because trade flows with the 4 trading partner regions (EU26, Romania, CIS, all others) are treated symmetrically, the decline in exports is the same for each non-EU26 region. It is worth recalling that in our base year 2004 Moldova already had free trade agreements with the CIS countries (as well as Romania). Thus an FTA with the EU would put Moldovan trade with the EU on an equal footing with the CIS countries.

Moldova's imports under Scenario (i) rise by 2% in real terms for all trading partners (Table 22) in response to a real appreciation of the Moldovan currency by almost 4% (Table 23). The improvement in the terms of trade (rising fob export prices through lower EU tariffs with constant import prices) increases total absorption and private consumption by about 1%.

Table 21 CGE simulation results: change in real exports by trading partner region, %, relative to base run

	Higher export prices to EU			Lower MDA tariffs on EU imports: all regions	Lower import tariffs and higher export prices		
	EU(26)	ROW	Total		EU(26)	ROW	Total
Primary sectors	3,2	-6,4	-2,0	-0,8	2,1	-7,4	-3,0
Food, beverages, tobacco	-1,5	-10,6	-9,7	-1,5	-3,5	-12,5	-11,6
Textiles, clothing, leather goods	50,0	36,1	45,5	12,0	65,5	50,1	60,5
Wood, paper, printing, furniture	3,3	-6,3	-5,5	-0,6	2,3	-7,2	-6,5
Chemical, metallurgy, recycling	2,9	-6,7	-4,3	-1,2	1,3	-8,1	-5,8
Machinery, equipment	0,3	-9,0	-7,4	-1,1	-1,4	-10,6	-9,0
Electricity etc. distribution	0,0	-3,7	-3,7	-0,6	-4,6	-4,6	-4,6
Construction	4,4	-5,3	0,2	0,2	4,5	-5,2	0,3
Wholesale and retail trade	0	0	0	0	0	0	0
Hotels and restaurants	2,1	-7,4	-4,6	-1,0	0,6	-8,7	-6,0
Transportation	4,5	-5,2	-3,0	-0,2	4,0	-5,7	-3,4
Communication services	4,3	-5,4	-2,6	-0,9	3,1	-6,5	-3,8
Financial, profess., other priv. serv.	3,9	-5,7	-1,9	-0,7	2,9	-6,6	-2,9
Public administration / NGOs	0	0	0	0	0	0	0
Public services and private hh's	5,9	-4,0	-2,4	-0,7	4,9	-4,8	-3,3
Total exports			2,9	1,2			4,3

Source: own calculations based on GCE model

Table 22 CGE simulation results: change in real imports by trading partner, %, relative to base run

	(i) Higher export prices to EU: all regions	(ii) MDA tariff reduction on imports from EU only			(iii) Lower import tariffs and higher export prices		
		EU(26)	ROW	Total	EU(26)	ROW	Total
Primary sectors	3,3	13,9	-1,1	1,1	17,8	2,3	4,6
Food, beverages, tobacco	2,0	9,7	-2,1	0,6	11,9	-0,1	2,7
Textiles, clothing, leather goods	19,4	7,5	1,3	5,1	28,7	21,3	25,9
Wood, paper, printing, furniture	-0,3	5,3	-3,2	0,1	4,9	-3,5	-0,2
Chemical, metallurgy, recycling	0,4	10,1	-3,0	0,3	10,6	-2,6	0,7
Machinery, equipment	0,0	2,3	-2,6	0,1	2,3	-2,6	0,0
Electricity etc. distribution	1,4	0,0	0,1	0,1	2,0	1,6	1,6
Construction	1,8	-0,2	-0,2	-0,2	1,7	1,7	1,7
Wholesale and retail trade	1,0	0	0	0	0	0	2
Hotels and restaurants	3,3	0,5	0,5	0,5	4,1	4,1	4,1

Transportation	2,0	0,1	0,1	0,1	2,2	2,2	2,2
Communication services	4,0	0,7	0,7	0,7	4,9	4,9	4,9
Financial, profess., other priv. serv.	3,4	0,6	0,6	0,6	4,3	4,3	4,3
Public administration / NGOs	0,0	0	0	0,0	0	0	0,0
Public services and private hh's	4,2	0,7	0,7	0,7	5,1	5,1	5,1
Total imports	2,3			0,7			3,1

Source: own calculations based on GCE model

The pattern of structural change in sectoral output is somewhat surprising at first sight. Total output does not change in real terms because all factors of production are assumed to be fully employed. However, light industry output grows by 43% while most other sectors see output fall. Light industry plays a special role because it has a large share of exports in output as well as substantial imported intermediate inputs (mostly textiles used in clothing production). As a result, light industry attracts a disproportionate share of the resources that are newly devoted to the production of exports. While the simulated changes in light industry output and export may seem exaggerated, it is remarkable that this sector has in fact grown sharply since 2004.

Scenario (ii) reflects the elimination of Moldovan tariffs on merchandise imports from the EU; no change is assumed in the trade regime for service imports. As is to be expected, imports grow slightly overall; there is some diversion of imports from non-EU regions towards the EU (Table 23). Total exports increase in line with growing imports (Table 22); export growth is concentrated in light industry, where output also expands correspondingly. Since Moldovan import tariffs are already low, macroeconomic effects remain limited: total absorption and private consumption grow only marginally, and even the loss in government revenue could be compensated (hypothetically) by increasing the income tax rate by only half a percentage point. The small real appreciation in Scenario (ii) is counter-intuitive because a tariff cut should normally lead to a real depreciation; this result is due to the large imports of intermediate inputs for the rapidly expanding textiles and clothing industry.

Table 23 Simulation results: sectoral output and macro variables, percent change from base run

	Base run (percent share)	(i) Higher fob export prices to EU	(ii) Lower tariffs on imports from EU	(iii) Lower tariffs and higher export prices
Total absorption		0,8	0,1	0,9
Private consumption		1,2	0,1	1,4
Output by activities				
Agriculture etc. large scale	7,2	-1,0	-1,0	-2,2
Agriculture etc. small-scale	13,9	0,0	0,0	0,0
Food, beverages, tobacco	8,0	-6,4	-1,1	-7,7
Light industry	2,3	43,0	11,3	57,2
Wood, furniture, printing	1,5	-3,7	-0,8	-4,6
Chemical, oil refinery, recycling	2,6	-2,2	-0,9	-3,3
Machinery	1,5	-5,5	-1,0	-6,9
Electricity and gas distribution	2,6	-1,3	-0,3	-1,7
Construction	3,9	-0,1	0,0	-0,1
Wholesale and retail trade	11,7	-0,7	0,0	-0,7
Hotels and restaurants	1,1	-2,5	-0,6	-3,3
Transportation	7,0	-1,5	-0,1	-1,7
Communication	6,1	-0,5	-0,3	-0,8
Financial and profess. serv.	12,3	-0,1	-0,1	-0,2
Public admin & NGOs	5,3	0,3	0,0	0,3
Public and other services	13,0	0,5	0,0	0,5
TOTAL	100,0	0,0	0,0	0,0
Real exchange rate (negative sign indicates real appreciation)		-3,7	-0,5	-4,5
Change in income tax rate for households and enterprises to balance government budget (percentage points)		0	0,5	0,5

Source: own calculations based on GCE model

The effects from the combination of lower export prices and lower Moldovan tariffs in Scenario (iii) are usually close (though not exactly equal) to the sum of the corresponding effects in Scenarios (i) and (ii). These simulations suggest that most of the structural change that would result from a Moldova-EU FTA has already been set in motion when the EU granted Autonomous Trade Preferences to Moldova. The additional impact of tariff cuts in Moldova for imports from the EU will be relatively small. This is true even for the fiscal impact where the loss of tariff revenues could be compensated for (hypothetically) by modest increases in other taxes or could simply be distributed over several years by phasing in tariff cuts. As government revenue from other sources has grown robustly in recent years, it should be possible to phase in the tariff cuts without visible tax increases.

Based on these observations, should Moldova strive for an FTA with the EU at all if most of the benefits (in the form of lower tariffs on Moldova's exports to the EU) have already been realized? This question needs to be answered by considering the political dynamics of Moldova-EU relations, particularly the role of an FTA as a stepping stone towards closer integration. If closer integration (with its possible growth effects from policy harmonization, institutional anchoring of economic reforms in Moldova, and transfers from the EU) is the Moldovan government's ultimate objective, then an FTA is a necessary first step – not least because it would replace the Autonomous Trade Preferences, which the EU is free to withdraw at any moment, with a mutual binding international treaty. The following section considers the possible dynamic effects of an FTA – specifically in the form of a „Deep and Comprehensive FTA “with significant policy harmonization - in detail.

Growth and welfare effects

This section draws on a similar discussion in Emerson et al. (2007). The comparative-static CGE model in the previous section gives a useful indication of prospective structural change in international trade and production patterns due to a Moldova-EU FTA. However, this model cannot account adequately for how a lasting improvement in the quality of institutions in Moldova through deep integration with the EU would lead to additional investment and hence GDP growth in Moldova. This section reviews recent literature on medium-to-long-run growth effects of regional integration and institutional reforms and applies the findings to an EU-Moldova Deep and Comprehensive FTA. Two strands of literature are considered: (i) case studies based on the experiences of recent major regional integration projects such as NAFTA; and (ii) econometric studies that relate improvements in the quality of institutions to GDP growth.

Piazolo (2001, Chapter D) reviews case studies of the growth effects of regional integration between rich and poor countries. It is often argued that by "anchoring" key institutional reforms in an international agreement, poor-country governments may enhance their credibility, improve the investment climate, and accelerate GDP growth. Regional integration with institutional approximation to the rich partner is a strong signal of the commitment to reform. It renders arbitrary policy changes more difficult and costly, and thereby strengthens the incentives for the government to stay the course. The influence of special interest groups on policy outcomes is reduced, further enhancing the credibility of reforms.

The history of NAFTA shows these mechanisms at work. Fernandez-Arias and Spiegel (1998) argue that the primary impact of NAFTA does not lie in the further reduction of already low tariffs between the partners, but in a fundamental change in the

attractiveness of Mexico as a location for investment. They extend the traditional analysis of customs unions to allow for international capital movements and show how a trade accord may improve the ability of the less developed partner to attract capital. Beyond this, it has been argued from a political economy perspective that the existence of NAFTA made it easier for Mexico to overcome the Peso crisis of December 2004 because, without NAFTA, the US government would not have mobilized the large financial resources needed by the Mexican government to avoid default. In this respect, regional integration provided "insurance" cover to Mexico, reducing planning uncertainties for economic agents. The NAFTA experience is particularly relevant to an EU-Moldova Deep and Comprehensive FTA which would fall short, in terms of the strength of commitments and extent of financial support, of full EU membership; nevertheless, NAFTA has been an effective mechanism for enhancing economic reforms in Mexico.

The example of Mexico and NAFTA also showcases one key channel through which improvements in the investment climate lead to higher investment and income growth. A large proportion of output growth in Mexico comes from trade and production networks between US and Mexican plants. While the outsourcing of low-skilled-labour-intensive activities from the US was the primary driving force, more complex patterns of interaction are emerging. In this respect, Mexico's experience mirrors that of many other developing and transition economies where manufactured exports have expanded rapidly. Typically, a wide variety of trade and production networks involving local and importing-country firms has evolved (e.g. Luecke, Szalavetz 1999). In these networks, importers perform functions that are initially beyond the capacity of local firms, e.g. marketing in the export market, product design, quality control, finance, or logistics. Local firms are thus free to focus on manufacturing operations where their comparative advantage lies. Over time, learning by doing as well as more formal transfers of technological and managerial know-how allows many local firms to move into higher-value-added activities and become more independent of their importing-country partners.

Such trade and production networks may involve different ownership patterns, including but not limited to foreign direct investment. Invariably, however, they require importing country firms to make a substantial investment - in terms of effort, time, and money - in the relationship with the local firm. Therefore, a good investment climate and business environment is a precondition for successful network formation (and by implication, expansion of manufactured exports) even when no FDI is involved. It is in this context that regional integration, such as through a Deep and Comprehensive EU-Moldova FTA, has a crucial role to play. This is especially true in a country like Moldova where trade and production networks are only beginning to evolve. Moldovan clothing producers and similar low-skill-intensive industries have already benefited from some outsourcing by West European firms. However, a problematic business environment makes it difficult especially for small and medium-sized firms to attract the kind of involvement and support from foreign firms that would enable them to diversify into more sophisticated manufactured exports and overcome dependence on simple processing ("lohn") operations. If deep integration between Moldova and the EU contributes to improving the business environment in Moldova, the benefits in terms of additional investment and enhanced production and trade networks at the firm level could be substantial.

While case studies of regional integration schemes such as NAFTA are instructive, they cannot quantify the net growth effects of the integration agreement and any resulting institutional reforms because income growth during the period of integration

depends on many other possible factors as well. Econometric studies of the growth effects of institutional change seek to overcome this difficulty. Such studies tend to be based on cross-section country data and follow one of two basic conceptual approaches: (i) assume that the quality of institutions is a parameter in a macroeconomic production function and estimate the output elasticity of institutional quality; or (ii) estimate Barro-type growth regressions that explain GDP growth over the period of observation as a function of initial per-capita income, investment ratios in human and physical capital, and various additional variables – including institutional quality – that may be viewed as influencing the efficiency parameter of the production function that underlies the growth model.

Of the studies that directly estimate the output elasticity of institutional quality, the estimates by Piazzolo (2001, Chapter D) may be the most directly applicable to EU-Moldova institutional approximation. Piazzolo uses the EBRD transition indicator (published annually in the EBRD Transition Report) to measure the extent to which reforms in the EBRD sample of transition economies during the 1990s have created institutions of the same quality as the EU's. The EBRD transition indicators cover major areas of systemic reform (corporate governance, markets and international trade, financial sector, legal infrastructure) and range from 1 (indicating little or no reform in the particular area) to 4+ (institutional quality equivalent to *Acquis Communautaire*). The average score for Moldova in 2007 was around 3; it seems reasonable to assume that an ambitious, Deep and Comprehensive FTA with the EU could bring the average score to around 4 during a reasonable implementation period. According to Piazzolo's estimates, such an improvement in institutional quality by one third would increase the level of GDP by at least one tenth purely due to the greater efficiency of resource. The total increase in GDP, allowing for additional investment over time, could be in the 20 to 30% range. Clearly, even though these numbers (and similar results in the literature) are based on solid econometric work, they are not "exact" estimates but indications of the possible order of magnitude of income effects, assuming an effective institutional approximation between Moldova and the EU.

A Deep and Comprehensive FTA between Moldova and the EU might extend to selected service sectors. Several econometric studies have recently been undertaken on the impact of service sector reform and liberalization on GDP growth (see Lücke, Spinanger 2004 for a summary); they show large growth effects from successful service sector reform and liberalization. For financial services, Francois and Schuknecht (2000) find that financial sector openness (i.e., the presence of foreign banks in the domestic market, not necessarily involving capital account liberalization) is strongly and positively associated with competition in the sector; furthermore, competition is strongly associated with economic growth, on top of the separate effect of financial sector development on growth. In other words, a highly competitive and highly developed financial sector is associated with a higher GDP growth rate than a less competitive and similarly developed sector.

Overall, the annual GDP growth rates of countries that had fully opened their financial services industries were 1.3 to 1.6 percentage points higher than for countries with the "most closed" type of financial services regime. Similarly, Mattoo, Rathindran and Subramanian (2001) find from cross-country growth regressions that countries with fully open telecommunications and financial service sectors grew up to 1.5 percentage points faster *annually* than other countries. These are huge growth effects from services liberalization; for example, with a 1.5 percentage point difference in annual growth rates between two countries, after 20 years GDP is 35 percent higher in the richer country. Overall, available studies suggest that a Deep

and Comprehensive FTA between Moldova and the EU that leads to further successful services liberalization, institutional reforms, and approximation to the EU would provide a sizable boost to GDP in Moldova in the medium term.²⁶

Conclusions

- Three separate simulations have been undertaken to assess the impact of a Moldova-EU FTA. The first one bases on a 5% increase of the fob export prices of Moldovan exports to the EU in order to simulate the elimination of EU tariffs on imports from Moldova. This scenario broadly reflects the current situation with the EU's Autonomous Trade Preferences which eliminate tariffs on most EU imports from Moldova, with only a few tariff quotas remaining on agricultural products that the EU considers sensitive. Under the second scenario all Moldovan tariffs on imports from the EU are eliminated, which is the main step that Moldova would have to take in order to implement an FTA with the EU. The third one includes effects of previous two scenarios together. The simulations are comparative-static, which means that the potential effects will manifest in long-run as Moldovan economy adjusts to the changes in policy parameters.
- Under the first scenario elimination of the EU customs tariffs is likely to be associated with a 3% growth of total exports and a 2% growth of total imports, accompanied by a real appreciation of the Moldovan currency. Total absorption and private consumption will increase marginally by about 1%. Output will grow unevenly by sectors, with light industry showing the highest potential for growth, while such industries as food and beverages and production of machinery likely to decrease their outputs. The high production growth of light industry is explained, among other things, by a disproportionate share of the production factors devoted to the production and exports.
- Scenario number two reflects the elimination of Moldovan tariffs on merchandise imports from the EU and it important to note that no change is assumed in the trade regime for service imports. Imports are expected to grow marginally with some diversion of imports from non-EU regions towards the EU. Total exports increase as well, and light industry again shows the fastest rates of growth of export and production. As shown in previous chapter, Moldovan import tariffs are already low, and macroeconomic effects remain limited under this scenario. Potential losses of the budgetary revenue from reduction of the customs tariffs could be compensated by increasing marginally other taxes or simply phased out over a longer period of time. The effects from the combination of lower export prices and lower Moldovan tariffs in the third scenario are close to the sum of the corresponding effects in the previous two scenarios.
- Economic simulations suggest that most of the structural change and trade effects that would result from a Moldova-EU FTA have already been triggered by the Autonomous Trade Preferences that EU has offered Moldova in March 2008. Both positive and negative consequences would be probably small. This means that the most significant effect of a simple FTA between Moldova and EU may lie in the political rather than economic area. First of all, this will put EU on equal footing with CIS countries in the Moldova's foreign trade. Secondly,

²⁶ This conclusion is further supported by recent research on southern Mediterranean neighbourhood partner states (Egypt, Tunisia) that suggests very substantial gains from service sector liberalisation (Mueller-Jentsch 2004).

by signing an FTA with Moldova, the EU would not be able to refrain from executing its commitments, while in case of the Autonomous Trade Preference the EU is free to withdraw them unilaterally. However, Moldovan government has to strive for a deeper economic integration with EU, i.e. a sort of integration going beyond the trade itself. In such case, a Deep and Comprehensive FTA is the necessary first step.

- The model that was used for economic simulations of a Moldova-EU FTA cannot account adequately for the economic effects of improvement in the quality of Moldova's institutional environment that would converge to the EU standards and for other effects associated with deep integration (policy harmonization, transfers from the EU, liberalisation in trade with services, liberalization in circulation of the labour force). International literature on growth effects of regional integration between rich and poor countries shows that by anchoring the poor country in an international agreement with respect to institutional reforms, its government can enhance its credibility, improve the investment climate, and accelerate GDP growth. By promoting better institutional environment in the less advanced country, such an agreement would enhance the international links between the companies and help the companies from poor country to advance along the value-chain. Existing studies suggest that if an ambitious Deep and Comprehensive FTA between Moldova and EU could help the former improve its institutional quality score (based on EBRD methodology) from 3 on average in 2007 to 4 over a reasonable period of time, this would increase the level of GDP by at least one tenth purely due to the greater efficiency of resource. The total increase in GDP, allowing for additional investment and liberalisation of the financial liberalisation, could be in the 20 to 30% range.

4. Competitiveness of the Moldovan economic sectors

In this chapter, we analyze the comparative advantage of Moldovan agricultural and industrial products and some tradable services in global markets and vis-à-vis the European Union. In the theory of international trade, there are two theories of comparative advantage. The Ricardian theory attributes comparative advantage to technological differences across nations. The Heckscher-Ohlin theory states that comparative advantage results from cost differences which are determined by the relative factor scarcity of the countries. Balassa suggested that comparative advantage could be “revealed” by observed trade patterns that reflect differences in factor endowments across nations. In this chapter the Balassa index is used in order to determine Moldova’s weak and strong production sectors. The chapter also discusses shortly the “sensible” sectors which may be affected negatively as result of opening them to competition from European companies.

Agriculture and food industry

In 1965, Balassa constructed an index that measures a country's revealed comparative advantage (RCA). The index has certain advantages and disadvantages, which are out of the scope of this study. Within time, the RCA index has been modified and enhanced by several economists, but the original RCA index is still widely used and accepted as a valid indicator by international organizations such as OECD. In this study we use Balassa's measure of relative export performance by country and commodity, defined as a country's share of world exports of a commodity divided by its share of total world exports. This analysis complements and puts in perspective the analysis conducted based on the GCE model in the previous chapter.

The RCA index for commodity j is calculated as follows:

$$RCA_{mj} = (X_{mj}/X_{wj}) / (X_m/X_w)$$

where;

X_{mj} = Moldova's export of commodity j

X_{wj} = world exports of commodity j

X_m = total exports of Moldova

X_w = total world exports

If the RCA index (RCA_{mj}) for the commodity j takes a value greater than one, the country has a revealed comparative advantage in that product. Our analysis of the comparative advantage of Moldovan agricultural products includes two aspects; the comparative export advantage of Moldovan agricultural products with respect to world exports, and also vis-à-vis the EU-25. Analysis bases on the trade data of Moldova according to two-digit SITC Rev. 3 classification for a period of 1994-2006²⁷.

As seen in Table 24, half of the agro-food product groups examined reveals comparative advantage in world export markets. In almost all periods, beverages have the highest level of comparative advantage. Although the index level fell from the 2005 value of 51.5 to 32.4 in 2006, beverages (especially wine, spirits and fermented beverages) still have a strong competitiveness in world markets. Vegetable fats and oils show an increasing trend in comparative advantage and in recent years reveal a strong competitiveness. The index level of oilseeds and

²⁷ 1997 is excluded from the analysis because the 1997 data in many commodities is flawed.

oleaginous fruit increased significantly from 1994 to 2001, then after a temporary fall, recovered in 2006 and reached a level of 10. Fruit and vegetables showed almost a constant trend and revealed strong comparative advantage in all periods examined. The most volatile index level belongs to hides, skins and furs. From an average value of 8 between 1994 and 2001, the index climbed up from 2002 to 2005, and even exceeded the index values of beverages. In 2006, the comparative advantage index level fell back to 5.5. Meat products and animal fats showed significant decreases in comparative advantage. Meat and meat preparations were highly competitive in 1990s, but recently reveal disadvantage with a value less than 1.

Table 24 Revealed Comparative Advantage Index for Moldovan agricultural products (1994-2006)

SITC	Commodity	1994	1995	1996	1998	1999	2000	2001	2002	2003	2004	2005	2006
11	Beverages	24.84	35.81	42.60	52.19	37.03	49.58	52.01	48.55	47.83	47.18	51.54	32.38
42	Veg. Fats and Oils	3.99	3.72	1.09	1.41	1.24	2.76	6.25	8.66	11.16	12.96	11.74	11.21
22	Oilseed, Oleag. Fruit	2.71	3.50	4.06	7.39	11.31	18.34	17.84	9.99	5.77	8.91	8.10	10.01
05	Vegetables and Fruit	12.79	11.13	9.92	11.80	9.76	10.22	9.16	8.41	9.70	8.80	9.14	9.94
06	Sugar, Sugr. Prep, Honey	19.47	23.93	20.30	14.84	8.09	3.24	6.38	8.89	6.49	2.11	3.05	7.42
04	Cereals	5.19	3.67	2.54	4.17	7.00	4.28	4.31	8.90	3.20	3.34	5.92	6.24
21	Hides, Skins, Furskins	6.41	8.72	5.86	5.55	13.37	10.78	5.44	19.08	43.97	61.59	66.01	5.50
12	Tobacco, Tobacco Manufact	11.87	13.07	18.73	11.53	17.99	18.83	12.25	8.23	4.12	3.46	4.47	4.48
00	Live Animals	0.56	4.67	1.54	0.34	1.98	2.74	0.62	1.14	3.53	1.35	1.42	2.99
08	Animal Feed	0.16	0.42	0.62	0.49	0.90	0.81	0.85	2.38	2.37	2.52	2.49	2.88
02	Dairy Products, Eggs	3.16	3.14	2.61	1.49	2.63	3.77	3.73	1.91	1.41	1.99	2.82	2.79
29	Crude Animal, Veg. Materl.	0.77	0.53	0.61	1.44	2.13	5.86	4.23	2.13	1.04	0.22	0.62	0.54
07	Coffee, Tea, Cocoa, Spices	0.31	0.67	0.74	0.12	0.13	0.22	0.22	0.37	0.26	0.26	0.49	0.50
01	Meat, Meat Preparations	5.95	6.77	6.50	6.40	6.27	4.67	2.51	2.18	3.66	1.66	0.40	0.48
24	Cork and Wood	0.01	0.05	0.03	0.07	0.11	0.07	0.14	0.14	0.18	0.29	0.27	0.45
09	Misc. Edible Products	3.07	2.37	2.74	0.93	1.48	0.60	0.20	0.10	0.18	0.23	0.24	0.28
43	Animal, Veg. Fats, Oils, nes.	0.12	0.19	0.16	0.16	0.31	0.34	0.28	0.23	0.13	0.12	0.15	0.26
26	Textile Fibres	0.27	0.56	0.54	0.42	0.27	0.63	0.53	0.24	0.24	0.15	0.23	0.19
25	Pulp and Waste Paper	0.10	0.05	0.09	0.01	0.02	0.18	0.29	0.36	0.33	0.23	0.10	0.06
03	Fish, Crustaceans	0.03	0.03	0.06	0.02	0.00	0.00	0.00	0.08	0.00	0.01	0.03	0.01
23	Crude Rubber	0.04	0.02	0.01	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.01
41	Animal Oils and Fats	11.36	1.59	0.58	0.23	3.20	7.07	0.49	0.42	0.00	0.16	0.00	0.00

Source: Own calculation from UN Comtrade data

Now we will turn our analysis to the comparative advantage of Moldovan agricultural products vis-à-vis the EU-25. Here, the index takes the form:

$$RCA_{mej} = (X_{mej}/X_{wej}) / (X_{me}/X_{we})$$

where;

X_{mej} = Moldova's export of commodity j to the EU-25

X_{wej} = world exports of commodity j to the EU-25

X_{me} = Moldova's total exports to the EU-25

X_{we} = total world exports to the EU-25

Similarly, if the value of the RCA index of Moldova vis-à-vis the EU (RCA_{mej}) exceeds one in a certain product, it means that Moldova has a comparative advantage in that product with respect to EU exports. Table 25 below illustrates the RCA_{mej} values for the period of 1999-2006.

As seen in the table, cereals and cereal preparations (SITC 04), hides, skins and furs (SITC 21), beverages (SITC 11) and fruit and vegetables (SITC 05) reveal very strong

comparative advantage against the EU-25, even though lower than in case of competitiveness against the world markets in general. Vegetable oils, oilseeds and tobacco products of Moldova also have a certain level of competitiveness in the European markets. For some commodity groups examined, index values have fluctuating trends in time. RCA index of hides, skins and furs jumped to very high values between 2002 and 2005, then fell to 17.4 in 2006. Likewise, tobacco showed a strong level of comparative advantage in 2002, then revealed disadvantage for three years, but in 2006 regained its comparative advantage. Dairy products was significantly competitive between 2000 and 2003, but then lost its advantageous position.

Table 25 Revealed Comparative Advantage Index for Moldovan agricultural products vis-à-vis the EU-25 (1999-2006)

SITC	Commodity	1999	2000	2001	2002	2003	2004	2005	2006
04	Cereals, Preprtns.	20.74	3.91	9.44	20.96	1.73	3.62	20.05	17.82
21	Hides, Skins, Furs	45.40	30.88	9.81	68.26	168.01	284.44	308.00	17.45
11	Beverages	14.70	20.43	8.03	8.10	8.80	6.23	8.56	10.51
05	Fruit and Vegetables	10.56	11.05	11.33	9.51	10.61	5.99	9.23	9.41
42	Vegetable Fats And Oils	0.24	0.87	3.96	0.01	9.47	12.88	1.71	5.92
22	Oil Seed, Oleaginous Fruit	8.17	13.03	9.52	0.84	0.07	3.69	1.77	4.23
12	Tobacco	0.00	0.07	0.40	8.49	0.58	0.76	0.14	2.86
08	Animal Feed	0.20	0.41	0.21	1.43	2.71	2.94	1.65	1.07
06	Sugar, Preptns, Honey	1.92	5.78	2.49	4.54	2.24	1.84	1.36	0.99
43	Animal,Veg. Fats, Oils, Nes	0.35	1.22	0.29	0.06	0.19	0.36	0.52	0.52
24	Cork and Wood	0.22	0.12	0.35	0.45	0.45	0.25	0.25	0.44
29	Crude Animal, Veg.Materials	0.83	0.67	0.28	0.77	0.76	0.16	0.32	0.44
09	Misc.Edible Products	1.30	0.49	0.38	0.12	0.55	0.05	0.18	0.14
26	Textile Fibres	0.25	0.36	0.24	0.19	0.18	0.05	0.07	0.05
07	Coffee, Tea, Cocoa, Spices	0.00	0.04	0.00	0.17	0.08	0.04	0.04	0.04
01	Meat, Preparations	0.80	0.00	0.01	0.05	0.04	0.02	0.04	0.04
02	Dairy Prod., Eggs	0.55	3.16	10.92	9.06	6.75	0.70	2.98	0.00

Source: Own calculation from UN Comtrade data

Competitiveness of the Moldovan industrial products in the world and EU markets

In this section we use the same Balassa's index of revealed comparative advantage to measure the relative performance of industrial exports from Moldova to the world and EU markets. While half of the agricultural exports reveal significant comparative advantage, Moldova is not very well positioned in industrial products exports. According to two-digit SITC Rev. 3 classification, only 7 groups of industrial products reveal comparative advantage and for only 4 groups the RCA Index is greater than 2. Table 26 shows Moldova's comparative advantage in industrial goods with respect to world exports.

Despite the few industrial products that reveal comparative advantage in 2006, the trend was positive during the transition period due to increased investment in some industries and also the decrease in exports of food and live animals and beverages and tobacco after 1998. In 1994 the Moldova had comparative advantage in four industrial products exports and the average RCA Index for industrial products was 0.41, while in 2006 it was 0.99.

Goods from miscellaneous manufactured articles group have the highest RCA indexes. Articles of apparel and clothing accessories, travel goods, handbags and similar containers and footwear became important exports after 2000 and represented 23% of Moldova's total exports in 2006. These products represent, to a great extent, „lohn" activities.

Also, some products from group 6, which accounts for 14.3% of Moldovan exports, have comparative advantage on world markets; however, the increase in RCA in 2006 compared to 1994 was not as significant as in case of miscellaneous manufactured articles. The most important goods in the group - leather, leather manufactures and dressed furskins - maintained its dominant place in the group in 2006 as in 1994. The significant drop in 2004 RCA index for the leather manufactures and dressed furskins was a consequence of the decrease of exports. At the same time, in 2003 and 2004 the exports of hides, skins and furskins had an impressive growth followed by a decrease in 2005.

Table 26 Revealed Comparative Advantage Index for Moldovan industrial products (1994-2006)

SITC code	Commodity	1994	1995	1996	1998	1999	2000	2001	2002	2003	2004	2005	2006
84	Clothing and clothing accessories	0.72	0.96	1.34	2.32	3.70	4.40	4.86	4.59	4.64	5.25	5.70	7.28
83	Travel goods, handbags and similar goods	0.32	0.32	0.33	2.09	4.46	4.19	3.90	3.82	3.82	4.22	4.17	5.35
85	Footwear	0.45	0.41	0.48	0.45	0.86	0.95	1.27	1.84	2.58	3.28	3.69	4.67
61	Leather manufactures and dressed furskins	1.04	1.56	1.35	1.45	1.01	1.07	0.73	1.59	1.07	0.30	1.52	2.29
66	Non-metallic mineral manufactures	0.45	0.97	1.66	0.82	1.05	1.39	1.26	1.05	1.06	0.92	0.98	1.84
82	Furniture, bedding, mattresses	2.00	1.42	1.08	0.49	0.44	0.22	0.19	0.11	0.14	0.48	0.96	1.80
69	Manufactures of metals	0.36	0.25	0.18	0.13	0.12	0.50	0.16	0.24	0.25	0.32	0.99	1.43
65	Textile yarn, fabrics and related products	0.87	0.46	0.58	0.55	0.55	0.53	0.87	0.61	0.55	0.62	1.01	1.43
64	Paper, paperboard and articles thereof	0.54	0.45	0.43	0.08	0.14	0.12	0.24	0.36	0.72	0.22	0.69	1.17
55	Essential oils and perfume materials	1.11	0.64	1.10	0.37	0.37	0.75	0.69	0.38	0.47	0.40	0.86	1.05
81	Prefabricated buildings, sanitary, heating, lighting	2.17	1.69	0.83	0.63	0.54	1.27	1.16	1.28	0.85	0.77	0.66	1.02
67	Iron and steel	0.50	0.35	0.21	0.04	0.03	0.03	0.04	0.06	0.45	0.50	0.52	0.95
89	Miscellaneous manufactured articles	0.24	0.23	0.24	0.13	0.11	0.13	0.13	0.14	0.16	0.29	0.35	0.63
87	Professional, scientific and controlling instruments and apparatus	0.14	0.10	0.31	0.25	0.20	0.30	0.54	0.52	0.35	0.34	0.34	0.57
74	General industry machinery and equipment	0.70	0.55	0.40	0.40	0.50	0.48	0.46	0.35	0.28	0.40	0.37	0.45
72	Machinery specialized for particular industries	0.55	0.51	0.49	1.00	0.67	0.44	0.64	0.55	0.47	0.50	0.36	0.38
54	Medicinal and pharmaceutical products	0.14	0.10	0.12	0.28	0.87	0.28	0.28	0.17	0.16	0.14	0.16	0.35
63	Cork and wood manufactures (excluding furniture)	0.07	0.13	0.14	0.09	0.16	0.21	0.35	0.14	0.23	0.38	0.15	0.35
62	Rubber manufactures	0.20	0.20	0.27	0.25	0.20	0.22	0.35	0.07	0.41	0.28	0.25	0.29
73	Metalworking machinery	0.07	0.04	0.07	0.11	0.15	0.17	0.12	0.18	0.32	0.10	0.17	0.28
77	Electrical machinery	0.39	0.25	0.22	0.19	0.09	0.10	0.12	0.10	0.09	0.09	0.13	0.22
58	Plastics in non-primary forms	0.08	0.03	0.06	0.09	0.01	0.06	0.13	0.05	0.02	0.07	0.21	0.21
78	Road vehicles	0.08	0.06	0.07	0.04	0.05	0.03	0.05	0.08	0.06	0.11	0.10	0.13
59	Chemical materials and products	0.05	0.08	0.06	0.11	0.27	0.13	0.03	0.09	0.09	0.06	0.12	0.10
56	Mineral and chemical fertilizers	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.11	0.36	0.29	0.56	0.08

79	Other transport equipment	0.01	0.09	0.09	0.08	0.17	0.10	0.12	0.30	0.18	0.45	0.15	0.08
71	Power-generating machinery and equipment	0.05	0.05	0.08	0.10	0.17	0.04	0.38	0.05	0.25	0.11	0.24	0.08
88	Photographic apparatus and optical goods, clocks	0.01	0.01	0.01	0.01	0.05	0.02	0.01	0.03	0.20	0.10	0.04	0.07
57	Plastics in primary forms	0.12	0.03	0.02	0.00	0.01	0.00	0.00	0.01	0.04	0.02	0.08	0.06
76	Telecommunication, TV, sound, video	0.66	0.21	0.17	0.16	0.20	0.11	0.08	0.07	0.06	0.04	0.04	0.05
53	Dyeing, tanning and coloring materials	0.05	0.04	0.25	0.17	0.14	0.39	0.28	0.27	0.13	0.05	0.05	0.04
51	Organic chemicals	0.32	0.21	0.42	0.13	0.28	0.08	0.05	0.02	0.01	0.01	0.01	0.03
75	Office machines and computers	0.04	0.01	0.00	0.00	0.05	0.03	0.01	0.03	0.01	0.02	0.02	0.03
52	Inorganic chemicals	0.08	0.09	0.08	0.01	0.09	0.01	0.01	0.00	0.01	0.00	0.00	0.01
68	Non-ferrous metals	0.05	0.13	0.05	0.04	0.07	0.04	0.06	0.06	0.06	0.07	0.00	0.00

Source: own calculations based on UN Comtrade

The other two classes of industrial products: chemicals and related products and machinery and transport equipment account for 6.5% and 2.2% of the total exports and have no comparative advantage to the world exports in any of the groups of products, but essential oils and resinoids and perfume materials Moldova. This was the only chemical product where Moldova had comparative advantage in exports to world markets in 1994. After 9 years of lost comparative advantage of essential oils and resinoids exports, the RCA Index was again slightly more than 1 in 2006.

On the EU markets more industrial groups of products exported from Moldova reveal a comparative advantage, including some new groups of industrial products as can be seen in Table 27. Also, Moldova has progressed more in respect to the competitiveness of its groups exported to EU markets as compared with goods exported elsewhere. In 2007 Moldova has kept the advantage in the exports of all groups of goods that revealed comparative advantage in 2000 with the exception of metalworking machinery export, where RCA index has decreased under unity from its value of 1.07 in 2000.

Table 27 Revealed Comparative Advantage Index for Moldovan industrial products vis-à-vis the EU-27 (2000-2007)

SITC	Commodity	2000	2001	2002	2003	2004	2005	2006	2007
53	Dyeing, tanning and colouring materials	8.45	8.84	6.63	5.12	6.50	6.58	7.34	7.17
51	Organic chemicals	2.54	2.99	2.22	3.07	5.59	6.36	6.25	6.44
76	Telecommunication, TV, sound, video	8.62	7.73	5.99	4.88	5.94	6.01	6.08	6.10
89	Miscellaneous manufactured articles	0.51	0.25	0.20	0.40	0.50	1.00	1.86	3.20
55	Essential oils and perfume materials	3.59	1.86	1.52	3.17	0.73	3.87	3.55	2.21
74	General industry machinery and equipment	0.97	0.87	0.69	0.96	1.01	0.95	1.35	2.17
66	Non-metallic mineral manufactures	0.74	1.95	1.40	1.32	1.95	2.53	1.94	1.82
57	Plastics in primary forms	0.40	0.30	0.22	0.19	0.65	0.98	1.17	1.64
72	Machinery specialized for particular industries	0.10	0.20	0.16	0.16	0.87	1.79	2.56	1.30
88	Photographic apparatus and optical goods, clocks	3.67	4.31	3.11	2.99	1.84	1.56	1.61	1.21
87	Professional, scientific and controlling instruments and apparatus	0.76	1.93	1.54	0.64	0.61	0.82	1.32	1.13
73	Metalworking machinery	1.07	1.20	1.03	0.40	0.54	0.61	0.53	0.81
63	Cork and wood manufactures (excluding furniture)	0.26	0.27	0.21	0.27	0.39	1.09	0.80	0.77
68	Non-ferrous metals	0.23	0.21	0.16	0.18	0.41	0.46	0.70	0.74
75	Office machines and computers	0.04	0.38	0.31	0.45	0.15	0.13	0.34	0.66
56	Mineral and chemical fertilizers	0.03	0.11	0.09	0.08	0.04	0.18	0.20	0.55
67	Iron and steel	0.21	0.27	0.21	0.11	0.44	0.20	0.20	0.36
77	Electrical machinery	0.37	0.20	0.20	0.13	0.06	0.13	0.16	0.26
82	Furniture, bedding, mattresses	0.00	0.01	0.01	0.29	0.95	2.01	0.23	0.20
79	Other transport equipment	0.08	0.17	0.12	0.11	0.23	0.14	0.22	0.17
65	Textile yarn, fabrics and related products	0.03	0.07	0.06	0.12	0.32	0.49	0.29	0.15
58	Plastics in non-primary forms	0.16	0.18	0.15	0.23	0.11	0.15	0.20	0.14
69	Manufactures of metals	0.01	0.00	0.00	0.04	0.00	0.02	0.02	0.13

85	Footwear	0.04	0.07	0.06	0.28	0.11	0.19	0.09	0.11
81	Prefabricated buildings, sanitary, heating, lighting	0.04	0.31	0.24	0.14	0.51	0.73	0.60	0.08
52	Inorganic chemicals	0.01	0.01	0.01	0.02	0.10	0.05	0.10	0.07
64	Paper, paperboard and articles thereof	0.10	0.06	0.04	0.04	0.06	0.08	0.17	0.06
62	Rubber manufactures	0.03	0.20	0.16	0.02	0.23	0.56	0.11	0.05
61	Leather manufactures and dressed furskins	0.39	0.32	0.21	0.12	0.07	0.06	0.05	0.04
59	Chemical materials and products	0.03	0.06	0.05	0.02	0.07	0.06	0.05	0.03
78	Road vehicles	0.08	0.03	0.03	0.03	0.02	0.02	0.02	0.02
83	Travel goods, handbags and similar goods	0.01	0.04	0.04	0.01	0.01	0.00	0.02	0.01
54	Medicinal and pharmaceutical products	0.08	0.14	0.13	0.06	0.02	0.01	0.00	0.01
71	Power-generating machinery and equipment	0.01	0.06	0.04	0.11	0.04	0.02	0.05	0.01

Source: own calculations based on UN Comtrade Database

Chemicals and related products reveal the most significant comparative advantage on EU 27 markets. However, chemical products are mostly exported to Romania which accounted for 45% of group's exports to EU in 2007. Telecommunication, TV, sound and video apparatus and equipment and general industry machinery and equipment are also important exports from the machinery and transport equipment group and not very much concentrated in terms of destination country. In the last 8 years the exports of machinery specialized for particular industries to EU increased by 186%, which resulted in the highest increase of RCA index from all groups of industrial products. An important contribution had the tremendous increase in exports of food processing machinery parts to Bulgaria after it joined the EU.

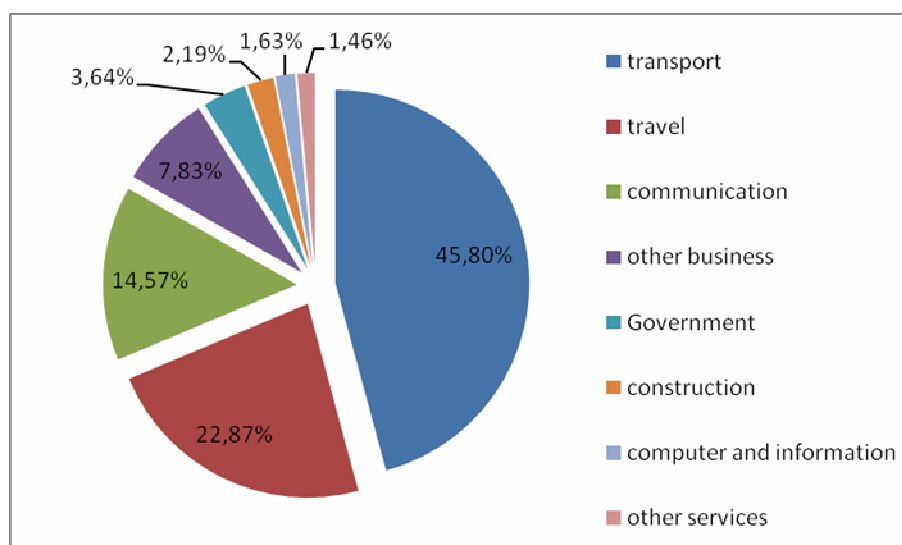
Despite the fact that more than 90% of Moldovan exports of articles of apparel and clothing accessories, footwear and travel goods, handbags and similar containers go to EU markets and represented 13.2% from total exports to EU, these groups of products have a RCA index lower than 1 due to high imports from other countries with higher export potential.

Internationally tradable services

In 2006 and 2007 Moldova had a positive trade balance for services, while trade deficit for goods has increased significantly. However, the trade balance for services has been always positive with CIS countries, where nearly 30% of service exports are oriented and only in 2007 was it positive with the rest of the world.

Unfortunately, due to the lack of the data it was impossible to calculate the Revealed Comparative Advantage Index for exports of services to EU. Available data allow for an analysis of the export of services only to two EU countries: Germany and Romania during the period of 2000 – 2006. These two countries account for 11.5% of total exports of services in 2007. Nevertheless, the share of exports to Germany has decreased from 8.8% in 2000 to 3.7% in 2007, while the share of exports to Romania has increased even after its accession to EU from 5.8% in 2000 to 7.8% in 2007. Even though not complete, the analysis of competitiveness of exports to these two important countries in Western and Eastern Europe is suggestive in terms of the abilities of the Moldovan companies to compete in the European markets.

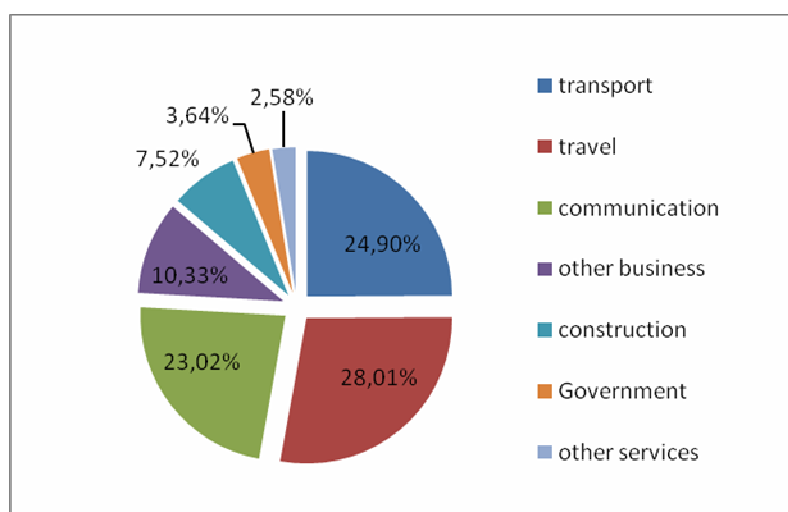
Chart 16 Structure of exported services to world, 2006, % of total value of exports



Source: NBM and authors own calculations

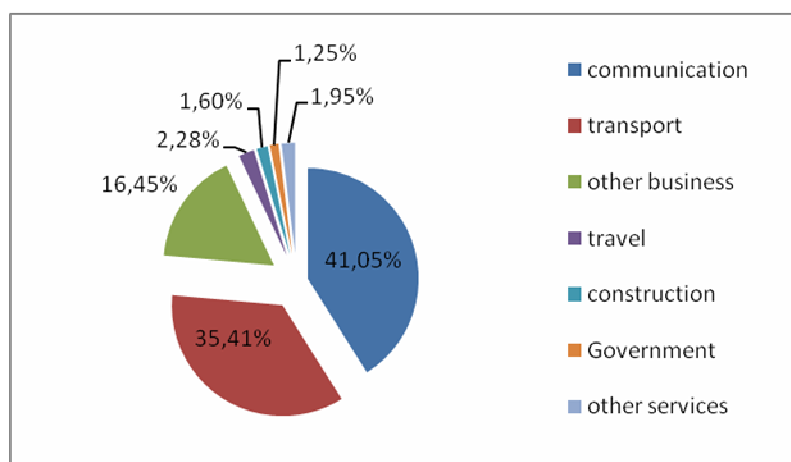
Services exported by Moldova are not very diversified. Transport, travel, communication and other business services account for more than 90% of exports of services (Chart 16). The share is almost the same for Romania (95%) and Germany (86%). However, the general structure of services exported to the two countries is different (Chart 17 and Chart 18). In case of Germany, exports of transport, travel and communications services represent roughly similar shares between 23-28%. In case of Romania, communications services hold the lion share with more than 41%, while transport services come second with more than 35% of total services exported to this country.

Chart 17 Structure of exported services to Germany, 2006



Source: NBM and authors own calculations

Chart 18 Structure of exported services to Romania, 2006



Source: NBM and authors own calculations

Both case studies show that the Republic of Moldova reveals a comparative advantage primarily in exports of communications services (Table 28 and Table 29). RCA index for communication services exported to Germany is 8.04, being higher than for Romania although the exports of communication services to Romania are four times higher than to Germany. Construction services are also an important area where Moldova reveals comparative advantage on Germany's market.

The trends have not changed dramatically since 2000 with two exceptions. Construction services, exported to Germany since 2002, were important exports in 2004, 2006 and 2007. Also travel services exported to Romania, once representing 26% from total exports to Romania and 6% of total trade services exported, decreased to only 2.3% of exports to Romania and 0.8% of total travel services in 2006. The situation is not much different in 2007 after Romania joined EU. As a result the RCA Index felt significantly under unity.

Table 28 RCA Index for Moldovan services exported to Germany

Code	Service description	2000	2001	2002	2003	2004	2005	2006
205	Transport	2.12	2.55	1.79	0.92	0.50	0.54	1.05
236	Travel	0.94	0.82	1.12	1.41	1.59	1.69	0.83
245	Communication	4.07	4.74	2.65	6.06	6.04	6.83	8.04
249	Construction	0.00	0.00	0.06	0.05	1.62	0.09	2.44
253	Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.49
260	Financial	0.03	0.04	0.29	0.76	0.15	0.16	0.36
262	Computer and information	0.20	0.01	0.07	0.09	0.05	0.05	0.17
266	Royalty and license	0.19	0.18	0.34	0.38	0.10	0.10	0.13
268	Other business	0.33	0.21	0.29	0.28	0.34	0.31	0.44
287	Personal, cultural and recreational	0.00	0.04	0.12	0.00	0.00	0.00	0.00
291	Government	7.51	7.59	6.96	4.74	4.69	4.04	4.61

Source: UN Service Trade Database and authors own calculations

249	Construction	0.61	0.08	0.98	0.48	0.26	0.48	0.48
253	Insurance	0.71	0.56	0.26	0.22	0.17	0.09	0.40
260	Financial	0.04	0.05	0.07	0.03	0.02	0.05	0.05
262	Computer and information	0.20	0.28	0.29	0.08	0.06	0.02	0.08
266	Royalty and license	0.22	0.07	0.08	0.08	0.09	0.02	0.02
268	Other business	0.08	0.62	0.85	0.86	0.46	3.06	5.89

287	Personal, cultural and recreational	0.00	0.00	0.00	0.00	0.00	0.00	0.00
291	Government	0.61	0.64	1.00	1.05	1.09	0.43	0.89

Table 29 RCA index for Moldovan services exported to Romania

Source: UN Service Trade Database and authors own calculations

Transport services are oriented mostly to CIS markets, which account for nearly 50% of exports. However, both European countries have an RCA index slightly greater than one. Nonetheless, it has to be mentioned that in Moldova market access is relatively more open than in either Croatia or Albania and Macedonia. In the above-mentioned countries this access is less free, due to, but not only, longer term of license issuance (in some cases by several times) and restricted access for the goods transporters and passenger carriages. An FTA would reveal Moldova's limits and disadvantages caused by the lack of harmonization of the national legal framework with the *acquis communautaire* and undeveloped infrastructure. Nevertheless, such an FTA will offer opportunities which Moldova should capitalize on. Growth in trade exchanges between EU and CIS and Asia will ensure a steadily increasing flow of goods, which will transit Moldovan territory. Transports sector could benefit from this development and aim to become a logistical hub between East and West. This possibility is quite relevant for the road transport, as Moldovan companies have been establishing themselves on the regional market with some success. However, promotion of such a strategy requires high degree of cooperation between "interested parties", state and private alike, since competition in this area is heightening.

Sensitive sectors

Sensitive sectors are a number of branches of the Moldovan economy which are politically, economically or socially important and are protected by higher than average imported tariffs. Among the most sensitive sectors one can identify mostly agricultural products: the sugar (30% customs tariff plus a safeguard tax), meat and poultry (20% plus additional specific tariffs per volume), dairy products (15-20% plus additional specific tariffs per volume), fruit and vegetables (15-20%) and cereals (15%). However, there are 15% import tariffs for a number of industrial products, such as mineral water, asbestos, some types of clothes, skins and paper and paperboard and carpets. In most of the cases, these tariffs are result of lobbying from the part of big national producers. Analysis suggests that in most of the cases these "sensitive" sectors will not suffer big losses as result of opening the market to EU competitors and they will be able to compete due to lower labour costs.

Agricultural sensible products apparently are the most problematic. The exports of fresh fruit and vegetables, nuts, vegetable oils and oilseeds, fruit juices, wine and sugar are expected to benefit from an FTA with the EU. On the other hand, meat products, live animals and dairy products are expected to lose from such an agreement. Regarding the benefits and losses of the agricultural sector as a whole, the total welfare gains are expected to be positive in long run.

An FTA with the EU would be an opportunity for Moldovan economy, in particular Moldovan agriculture, but it also carries certain risks for the sector unless necessary precautions are not taken. Deeper trade relation with the EU is beneficial for the agricultural sector of Moldova in two aspects. First, it would decrease the dependence of Moldovan agricultural exports to the Russian market and would make the sector less vulnerable to shocks from external markets. Second, large and diverse markets of the EU would push Moldovan agricultural producers to diversify

their production assortment from low-value crops to high-value commodities that could be exported to European markets. Again, this would decrease the vulnerability of Moldovan agricultural production to natural and external shocks.

Both the comparative advantage analysis and the views of experts and officials show that there will be certain winner and loser products in case of a Moldova-EU FTA. As for the sector as a whole, the total welfare gains are expected to be positive. However, one has to bear in mind that the net outcome will very much depend on how agricultural-related policies are implemented.

We had mentioned about the dualistic nature of the agricultural sector in Moldova. There are a large number of subsistence farmers and a relatively small number of market-oriented large corporate farms managing the majority of agricultural land. When we look at the potential winners, except for fresh fruit and vegetables, the majority of the products are related to corporate agricultural producers. These producers had, to a certain extent, adjusted themselves to the competition with the European producers in their domestic markets and also produce their products in order to export to foreign markets. Thus, the agricultural producers who had taken necessary precautions for competition with the European producers and who are already making profit in the sector are expected to be better-off with the FTA. The majority of farmers, who produce for their family needs, and so far had little interest in investing in their farms because of the lack of market incentives, and the farmers who enjoyed high level of protection, produced for the domestic markets without fulfilling international standards are expected to experience losses due to increasing competition and decreasing agricultural prices after the FTA with the EU.

At this point, Moldovan government has to take the necessary precautions in order to benefit more from an FTA with the EU and to avoid the distortion of already unequal income distribution in rural areas. If these precautions are taken, Moldova-EU FTA promises a vast potential for increased agricultural exports to a stable and large market. This FTA would not only lead to a rise in exports, but also would be a driving force for a modernized agricultural sector. One possible loss would be related to the removal to the custom tariffs, where tariff revenues, with a value around USD 30 million, constitute a very important part of the budget. Still, long run revenues from increased exports would easily offset this loss.

The most important precautions that Moldovan government has to take are related to regional and rural development. Large amount of farmers lack access to adequate financial services and markets, and alternative income-creating opportunities in rural areas are very limited. As discussed above, infrastructure of the sector is very insufficient and the quality of human capital in agriculture is low. This is a major obstacle for the development of the sector and its ability to compete with the European producers. In this sense, a wide-based rural reform involving occupational education, modernization of the infrastructure, creation of non-agricultural jobs in rural areas, and easing the access of small farmers to financial credit remains vital for the sector's future. In the short run, these steps would be costly, but the long run economic, social and political costs of ignoring these problems would be much higher.

Conclusions

- In this chapter the Balassa index for Revealed Competitive Advantages has been used to identify the most competitive sectors of the Moldovan economy from the perspective of liberalising the trade between the EU and Moldova. In

order to measure the comparative advantage, Balassa suggested that comparative advantage could be "revealed" by observed trade patterns that reflect differences in factor endowments across nations. In this sense, Balassa index is widely used in order to determine a country's weak and strong sectors.

- In the recent years, Moldova's exports of cereals, animal skins and hides, beverages (especially wine), fruit and vegetables (fruit juices and nuts), vegetable oils and oilseeds reveal a strong comparative advantage in the EU market. However, due to its underdeveloped and distorted agricultural markets and lack of human capital and technology, Moldova is unable to realize and materialize its comparative advantages. Rural poverty remains a major problem, underdeveloped agricultural markets and market interventions cause price distortions and constitute a major barrier to trade and reduce agricultural income for farmers.
- 11 groups of industrial goods produced in Moldova reveal comparative advantages in the EU markets (dyeing, tanning and colouring materials, organic chemicals, telecommunication, TV, sound and video equipment, essential oils and perfume materials, general machinery and equipment, some constructions materials and various miscellaneous manufactured articles). Also, Moldova has progressed more in respect to the competitiveness of its groups exported to EU markets as compared with goods exported elsewhere. However, it is not likely for these sectors to gain additionally from liberalising the trade with EU because the trade with these commodities is already 100% liberalised from the part of EU.
- In case of exports of services, the two case studies that have been done (exports to Romania and to Germany) revealed that the Republic of Moldova has a comparative advantage primarily in exports of communications services. Also, there are some competitive advantages for constructions and transport, but Moldova's situation in respect to competing in supplying of these services to EU markets is less strong than in case of telecommunications.
- A number of sensitive sectors are likely to be affected by the reduction of the imports tariffs to Moldova, but in most of cases, especially in what concerns the industrial products, the national producers will be able to withstand competition posed by the EU companies due to lower costs in the domestic labour market. However, the outlook for the agricultural products is less optimistic. Many Moldovan producers are likely to be worse off as result of opening the market, especially in case of such products as meat, live animals, some fruits and vegetables, and dairy products. These products are not competitive in the international markets and will not be competitive even in the domestic market after customs tariffs are removed.

5. Beyond trade: prospects for a Moldova-EU Deep and Comprehensive FTA

The next step in Moldova-EU trade relations should be a Deep and Comprehensive Free Trade Agreement that would enhance the tariff reductions and duty-free access granted currently by the Autonomous Trade Preferences, and would go beyond a simple free trade agreement and include free mobility in the services sector, harmonization of national regulations and standards with the EU acquis. This chapter looks at the main issues related to the deeper economic cooperation between Moldova and EU. A special attention is devoted to the problem of Moldovan producers meeting EU sanitary standards. The chapter includes also analyses of the cooperation in the areas of energy and transport. Another component of cooperation between Moldova and EU is the Moldovan sector of financial services, where much progress was registered so far, but much remains to be done. This part of the study also recommends the Moldovan government to negotiate the free movement of the labour as part of enhanced agreement with EU.

Sanitary and phytosanitary standards

Moldova's agricultural exports have generally been limited to certain countries and certain products. In the 1990s and the early 2000s, about 80 percent of Moldovan agricultural exports were destined to Russia and neighbouring countries. Also, exported agricultural products were almost limited to some fruit and vegetables, wine, vegetable oils and oilseeds. The fact that Moldova's agricultural exports were not diversified in terms of markets and commodities caused serious problems after Russia's ban on Moldovan fruit and vegetables in 2005 and wine in 2006, where agricultural exports, revenues and thus farm incomes fell significantly. This experience highlights the need for export diversification to different markets and with more diverse products.

As the EU is a large and stable market, shifting the trade focus to the EU is very important for the sustainability of agricultural export revenues and increasing farm incomes. As World Bank (2005) notes, Moldova's agricultural trade with the EU is much lower than its comparative advantage would indicate; partly related to the EU's protection of some agricultural goods, but mostly because of Moldova's weak capacity to trade with advanced economies.

In order to benefit from an FTA with the EU Moldova needs to ensure full implementation of WTO Agreement on Sanitary and Phytosanitary (SPS) Measures. With its accession to the WTO in 2001, Moldova committed itself to applying these standards. Moldova also pledged to harmonize its standards with those of the EU, however so far these commitments have not materialized. In many commodities, non-compliance with international food and animal safety standards has been a major obstacle on Moldovan agricultural exports to the EU. In meat products, dairy products, poultry and live animals, Moldova is far away from European SPS standards and cannot export to the EU unless it fulfils them. A good example of the importance of SPS standards in exports is Moldova's dairy exports to Romania and Bulgaria. Before 2007, these two countries were importing on average USD 5 million of dairy products from Moldova per year. However, following the accession of Romania and Bulgaria into the EU in 2007, this value fell sharply to a negligible amount of USD 24,000. The same outcome could be seen in the ten Central and Eastern European countries, where dairy exports to them were suddenly cut after their accession in 2004. The fact that Moldovan producers do not use the quotas for meat and dairy

products granted under ATP regime underscores once more the importance of the SPS standards in promotion of agricultural exports to the EU. Thus we can argue that comparative advantage of Moldovan dairy products in European markets in the early 2000s, was simply artificial, and when Moldovan dairy exporters face the European SPS standards, they can export almost nothing to the EU.

In fact, SPS reform is an important direction envisaged by the EU-Moldova Action Plan. Efforts put by Moldovan authorities can be best characterized as too little, too late. The most notable failures have been establishment of the system for identification and traceability of animals, fulfilment of EU requirements on animal health and for the processing of animal products, modernization of laboratories network, etc. In 2008 some progress has been made in legislative convergence and in streamlining SPS controls at the border via implementation of the single-window approach. However, there is long way from adoption to implementation of this legislation, thus more time will be needed for these changes to take full effect.

Moldova has ideal land and climate conditions for producing high-quality animal and dairy products, and adjusting the sector to European standards would open the EU market to Moldovan exporters. In this respect, Moldova should fully implement the requirements of the WTO Agreement on SPS measures, and urgently take necessary steps in order to converge to the EU standards in animal welfare, food safety, hygiene in food processing and labelling requirements. Moldova should also actively participate in the World Organisation for Animal Health, International Plant Protection Convention and Codex Alimentarius.

Currently, the Ministry of Health and Social Protection, the Ministry of Agriculture and the Main State Phytosanitary Quarantine Inspectorate have direct responsibilities for SPS measures in Moldova. Also, the National Institute for Standards and metrology is responsible for standards, metrology, and certification, and the implementation of the WTO Agreement on Technical Barriers to Trade. The main difference between Moldovan plant, animal and food standards and European SPS standards is that, for many commodities Moldova uses the GOST standards system inherited from the former Soviet Union. This standard is still used in Russia and the CIS countries and as Moldova's exports were mainly directed to these countries before 2006, there was no urgent incentive to change these standards and adopt international ones. Nevertheless, with Ukraine's accession to the WTO and negotiation of its own FTA+ deal with the EU, as well as with Russia pursuing WTO accession itself, the exports eastwards may become increasingly cumbersome in absence of proper implementation of modern SPS standards.

Furthermore, food safety requirements of the GOST standards are often lower than those established by the Codex Alimentarius and other international standards. Also, GOST standards in general form an obstacle for market access as they are not recognized in market economies, and they reduce competitiveness in exports because they allow producers little flexibility for following market trends and consumer taste and they involve extensive inspections throughout the production and trade process (World Bank, 2007). Thus existing GOST standards must be reassessed and replaced for compatibility with international SPS standards.

The authority for the formation and implementation of the SPS standards is very dispersed with its current situation. In order to determine the needs of the sector, set up the priorities, decide on the extent of the upgrading and assist the private sector, a unit that coordinates the works of the above mentioned government bodies and that is solely responsible for the SPS issues should be formed. Following that,

international SPS standards in food safety, quality controls, animal welfare, plant health and veterinary services should be adopted. Moldova also has inadequacy in fulfilling the European standards in some issues like labelling of food and beverages, laboratory systems, certification and accreditation, SPS control system and border procedures. Moldovan government has a huge task that could not be postponed as both WTO membership and Moldova's willingness to form closer economic ties with the EU is pushing for these reforms.

Since 2004, Moldovan government has taken some steps for the harmonization of its food and agricultural standards with international norms. For example, with the new Food Law that was adopted in 2004, national food standards are based on international norms, including Codex Alimentarius and those of the EU. However, there are contradictions in the Moldovan laws which seriously slow down the implementation of these standards. The most striking example is the Law on Standardization adopted in 1995, which states that national standards would become voluntary after 1 January 2005.

Another factor that is slowing down the adoption and implementation of the international SPS standards is the high cost of these changes. The World Bank estimates the total cost of actions for public sector improvement as USD 9.7 million, and USD 3 million is projected for private sector upgrading and capacity building. The implementation is expected to take 5 to 6 years, depending on the pace of institutional reform and the availability of funds. Unlike the other countries of the Central and Eastern Europe who adopted these standards before acceding the EU, Moldova does not have a chance to benefit from the EU funds. The funds like SAPARD and PHARE were designed for the assisting the countries during their accession processes, and as Moldova is not a candidate country for membership, the EU would not reserve funds for Moldova's SPS harmonization. Moreover, given the current situation of the sector, we can expect only a few companies to handle the costs and fulfil the SPS requirements; for the majority of the agricultural sector the high cost of adopting the European standards could lead to close-downs especially in animal and dairy sectors. In this sense, we highlight two priorities.

First, as mentioned above as the first necessary precaution, a rural development policy is inevitable and should be applied in harmony with the adoption of the SPS standards. So far, international organizations like the World Bank and IFAD have supported projects related to rural development programs in Moldova. As SPS issues like plant and animal health, environmental protection and food safety are also closely related to rural development, forming close ties between an extensive rural reform and adoption of international SPS standards would not only decrease the risks related to the costs of implementation of new standards, but also increase the chances to get external funds for specific projects.

Second, the coordination authority for the SPS issues should analyze the deficiencies of the current standards and implementations and set the priorities for adopting new standards. Sectors having trade relations or potentials with the EU and also sectors where adoption of SPS standards has become vital for human, animal or plant health should be given priority for the use of the available funds.

Energy sector

Priority areas of cooperation with the EU

Despite strong positive developments in goods' trade between the EU and Moldova, the trade and cooperation in energy sector has lagged behind. Obviously, the

historical legacy exerts much stronger influence in the case of energy trade than in the case of trade in goods. However, given the huge dependence on energy imports and rocketing prices, the role of the euro-integration of the Moldovan energy sector is of paramount importance for the stable development and modernization of Moldova. During recent years the cooperation between Moldova and EU in the energy sector has been developing more dynamically, nonetheless, the most daunting tasks lie ahead. In this chapter we will briefly look at the capacities of the Moldovan energy sector and problems impeding its development, main progress regarding approximation to the EU in this area, fundamental issues to be addressed and eventual impact to be expected.

Table 30 Implementation of the most important *acquis communautaire* in the Moldova's energy sector

Acquis Communautaire	Objective	Progress in implementation
Electricity		
European Community Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003	This Directive establishes common rules for the generation, transmission, distribution and supply of electricity. It lays down the rules relating to the organization and functioning of the electricity sector, access to the market. It requires demonopolization of the market, its gradual opening, and institution of independent regulatory bodies by all Member States.	Planned to be implemented by June 2008. Not implemented so far.
European Community Regulation 1228/2003/EC of the European Parliament and of the Council of 26 June 2003	Regulation aims at setting fair rules for cross-border exchanges in electricity, thus enhancing competition within the internal electricity market	Planned to be implemented by June 2008. Not implemented so far.
Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006	Measures to safeguard security of electricity supply and infrastructure investment. The Directive seeks to ensure adequate level of generation capacity, adequate balance and an appropriate level of interconnection between Member States for the development of the internal market	Not in the legislative pipeline
Gas		
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003	This Directive establishes common rules for the transmission, distribution, supply and storage of natural gas. It lays down the rules relating to the organization and functioning of the natural gas sector, access to the market, the criteria and procedures applicable to the granting of authorizations for transmission, distribution, supply and storage of natural gas and the operation of systems.	Planned for June 2008. Not implemented so far.
Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply	This Directive establishes a common framework within which Member States shall define general, transparent and non-discriminatory security of supply policies compatible with the requirements of a competitive internal gas market; clarify the general roles and responsibilities of the different market players and implement specific non-discriminatory procedures to safeguard security of gas supply.	Planned for December 2010
Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks	This Regulation seeks to ensure non-discriminatory rules for access conditions to natural gas transmission systems. In more detail it sets harmonized principles (methodology of calculation for tariffs, for access to the network, the establishment of third party access services and harmonized principles for capacity allocation and congestion management, the determination of transparency requirements, balancing rules and imbalance charges and facilitating capacity trading.	Planned for June 2008. Not implemented so far.
Environment		
Directive 2003/35/EC	This Directive aims at implementation of the Aarhus Declaration through ensuring public participation in respect of the drawing up of certain plans and programs relating to the environment as well as access to justice (Council Directives 85/337/EEC and 96/61/EC)	Scheduled to be implemented by June 2008. Not implemented so far.

Directive 1999/32/EC	This Directive aims to reduce emissions of sulphur dioxide resulting from the combustion of certain liquid fuels by imposing limits on the sulphur content of such fuels as a condition of their use within the territory of the EU.	Starting with 2012
Competition		
Article 81 of the EC Treaty	Cartel prohibition	Starting with 2009
Article 82 of the EC Treaty	Prohibition of abuses of dominant positions	Starting with 2009
Article 89 of the EC Treaty	Prohibition of any state aid which distorts or threatens to distort competition by favouring certain undertakings or certain energy resources	Starting with 2009
Renewables		
Directive 2003/30/EC	This Directive aims at promoting the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes in each Member State (reference target for 2010 is 5.75% calculated on the basis of energy content, of all petrol and diesel for transport purposes placed on the EU market). EU also made the so-called 20/20/20 pledges meaning that by 2020 EU would cut carbon emissions by at least 20% over 1990 levels; produce 20% of all energy from renewable sources; and make energy-efficiency savings of 20%.	June 2009 (however, Moldova is nowhere close to the achievement of indicators envisaged by the Energy Strategy)
Directive 2001/77/EC	The purpose of this Directive is to promote an increase in the contribution of renewable energy sources to electricity production in the internal market for electricity. The Directive also sets national indicative targets for electricity produced from renewable energy sources in 2010. These vary from 6% for Belgium up to 78.1% for Austria. The average for the EU is 22% share.	June 2009

Source: own assessments of the authors

Approximation with the EU energy market is a goal that is officially stipulated in the national Energy Strategy (2007-2020). Among the Strategy's aims is accession to UCTE (in 2006 Moldova and Ukraine applied for full membership in this organization) and Energy Community treaty²⁸ (since end of 2006 Moldova has an observer status). It is widely believed that acceding to the common energy market will help Moldova to secure and diversify energy supply, attract FDI in the sector as well as gain from the transit opportunities.

There are two most strategically important documents relevant to euro-integration of energy sector of Moldova: the new Energy Strategy (2007-2020) and the EU – Republic of Moldova Action Plan. Moldova's Energy Strategy also envisages gradual implementation of the EU acquis (with no progress up-to-date) in the electricity, gas, environment, competition, and renewable energy sectors. Most of the Directives are to be implemented by the end of 2010 (although a couple of very important directives in power and gas sector should have been adopted by middle of 2008), well before any Deep and Comprehensive FTA may be introduced. The Strategy also envisages significant consolidation of the electricity transit capacities that would significantly facilitate participation at UCTE and power trade in the region. Actually, on paper, implementation of the Energy Strategy means gradual approximation of the Moldovan energy market towards the European one establishing necessary preconditions for fully-fledged integration. However, given the pace with which the Strategy is being implemented, this approximation is poised to take more time than initially envisaged (see Table 30). The adequate financing of the Strategy's implementation has been lacking, it is estimated that less than 0.1% of the funds envisaged for 2007-2020 period was actually invested.

Another strategic document also seeks to facilitate approximation of the Moldovan energy market to the European one. Thus, the EU-Moldova Action Plan (2005-2008,

²⁸ The Energy Community extends the EU internal energy market to Contracting Parties in South East Europe and beyond. Current parties of the Energy Community Treaty are Albania, Bosnia and Herzegovina, Croatia, FYROM, Montenegro, Serbia and Kosovo; participants are the EU countries. Besides Moldova observer status is held by Georgia, Norway, Ukraine (for instance, in September 2008 EU agreed to provide Ukraine with €87 mil. to help with implementation of the country's Energy Strategy in a bid to foster approximation of the energy sectors) and Turkey.

still being implemented) also envisages a series of actions regarding energy sector. Most relevant are the following actions: (62) *Preparation of an updated energy policy converging towards EU energy policy objectives*; (63) *Gradual convergence towards the principles of the EU internal electricity and gas markets*, (64) *Progress regarding energy networks*; (65) *Improve transparency, reliability and safety of the gas transit network*; and (66) *Progress on energy efficiency and the use of renewable energy sources*.

The progress across these areas was quite uneven²⁹. Among the most significant drawbacks are: lack of funds to support implementation of many infrastructure and legislative actions, tariff distortions have been reduced but still persist, efforts on energy efficiency and renewable energy have been absent and need to be scaled up, privatization in the sector stagnated while situation in thermal energy area has been notoriously dismal, and liberalization of the sector (especially gas) remains a distant prospect.

The energy sector and Eurointegration

Given the rather modest size of Moldova's energy sector the issues to be tackled are rather limited by regional standards. For instance, Moldova does not have nuclear power sector or any significant coal or oil production capacities, and even electricity production capacities are rather small. In this sense Moldova is poised to gain through more diversified and secure access to energy and enhanced transit opportunities, rather than through energy exports. Even though, more diversified and secure access would not mean, at least in short- and mid-term perspective, better access to natural gas. In fact, overall dependence on Russian gas will tend to persist for quite some time in the future. Moreover, as Moldova will accede to UCTE together with Ukraine, electricity prices are set to rise as Ukraine will be able sell its surplus electricity on open regional market.

Generally, the most important issues connected to Deep and Enhanced FTA in energy sector gravitate around following three most important areas: regulatory reform, liberalization of the energy market³⁰ and diversification of supply, and strengthening local production capacities and transit infrastructure.

Regulatory reform mainly envisages capacity build-up and ensuring complete independence of the National Energy Regulation Agency (NERA). After lengthy hiatus, the General Director was named; however, the Government still maintains several instruments to influence the decision-making by the NERA: approving the budget, publishing decisions of NERA, etc³¹.

Another important issue is tariff policy. In the power market the methodology of tariff calculation was subject to acrimonious debate between the NERA and Union Fenosa, a Spanish company that owns distribution networks in the center and south of the country. Moreover, cross-subsidizing rates for residential consumers still persist. It is quite easy to foresee that tariff policy will become even thornier issue once electricity prices adjust to the regional level.

²⁹ See for more details: EU-Moldova Action Plan as capacity test for Moldovan Government: *Screening implementation of the Plan's economic provisions*, Expert-Grup, 2008.

³⁰ It is worthwhile mentioning that even among current EU members liberalization of energy market is fulfilled to a quite different degree.

³¹ It should be mentioned however that degree of independence of regulatory agencies in energy sector vary significantly across the current EU members. In any case, the issue of independent tariff-setting is cornerstone from this perspective.

The participation of Moldova in integrated grid network will require enhanced cooperation among the regulatory agencies as well as coordination between transmission system operators. Technical assistance from the EU would help Moldovan regulators and specialists to learn from their European counterparts.

Liberalization of the market and diversification of supply envisage that “network access is non-discriminatory, transparent and fairly priced” and “distribution and transmission systems are operated through legally separate entities”. This would mean that different power distributors should have access to the Moldovan market, while electricity imports will cease to be subject to any non-competitive arrangements, which is the case now. Privatization process in the energy sector should be continued as well. This will also help to some extent soothe the impact of price hikes that will result from joining together with Ukraine regional common market through annihilating any opaque non-transparent arrangements regarding energy supplies.

However, in order to make full use from the connection to the European power infrastructure significant investment in transit infrastructure should be made. Through the territory of Moldova electricity can be transited to the Balkans at the level of 4-5 bl. of kWh per year³². In this order the transit capacities should be consolidated. The National Energy Strategy envisages consolidation of the southern power grids in Odesa region (Ukraine) and Northern grids Novodnestrovsk (Ukraine) – Balti (Moldova) – Suceava (Romania).

Other important technical issues to be taken into the account are: ensuring implementation of European standards especially concerning quality parameters, i.e. frequency deviations (Soviet GOSTs are less exigent than EU standards) and modernization of measurement system, which is already underway and should have been completed by the end of 2008.

Nonetheless, such steps are harder to make in the gas sector. So far there are no viable solutions for diversification of the gas supply from the infrastructure point of view. The only supplier is Russian giant “Gazprom” which does not allow gas supply from other producers via its pipelines. Participation at other regional gas supply projects appears costly due to Moldova's geographical remoteness from their routes.

Strengthening local production capacities and transit infrastructure mainly implies increasing local power production (both through small co-generation power plants as well as from bio-fuels) and consolidating local electricity transit connections (mentioned above). However, given dismal record of financing the National Energy Strategy in the first implementation year, Moldovan authorities should scale up efforts aimed at seeking investment in the energy sector both from governmental as well as private sources. The situation is not less dire in the subsector of renewable energy: Moldova is nowhere close to achievement of the indicators set in the Energy Strategy, let alone those set in the EU.

All in all, inclusion of Moldova's energy sector in an eventual Deep and Enhanced FTA deal with the EU should result in more transparent and clear regulatory framework on the energy market. This would ensure more efficient, secure and fairly priced access to the energy (at the first stage - electricity) as European energy acquis will be applied in Moldovan energy sector. This will also help wipe out special interests from the sector.

³² The Energy Strategy (2007-2020) of the Republic of Moldova.

This however will come at some cost as currently energy prices in Moldova are low by regional standards. So consumers (residential consumers, public sector and private enterprises) will take some hit, while improvements in energy efficiency might offset to some extent this negative impact. At the same time re-adjustment of prices will make Moldovan energy sector more attractive for investments, which have been crowded out to some extent.

Consolidated transit capacities should result in increased incomes from amplified power transit through Moldovan territory offering some part of the funds needed for modernization of energy infrastructure.

Modernization and 'europenization' of Moldovan energy sector will require substantial investments prior to integration, though. Continuing privatization is 'part' solution however. There is need for sustained and growing investments in the sector. So far Moldovan authorities have failed in attracting significant investments to the sector. Some funds are in pipelines, but these will not suffice. More efforts should be put in this direction and EU may well lend a hand of support.

Cooperation in area of transport

Harmonising the national legislation

The EU legislative framework aims at enhancing functioning of the internal markets in the member states through promotion of the reliable, efficient and environment-friendly transport services. The *acquis communautaire* in the transports field contains more than 600 legal and normative acts that are subject to continuous improvement. These acts define policies in the transports sector in 5 major sub-sectors: road, railway, river, air, and sea. This framework envisages standards referring to reliability, security, social, state and control aspects, as well as liberalization of the internal market.

However, most of the legislative and normative EU acts (excluding some directives and regulations) do not foresee establishment of any administrative institutions. The member states themselves are free to decide upon what institution (usually it is Ministry of Transports) is responsible for implementation of the *acquis* in this area. The most fundamental legislative aspects refer to the establishment of the competent institution, endowed with adequate capacity to promote transport policies, including: issuing certificates; enforcing safety norms; ensuring non-discriminatory market access; ensuring competitive climate in the marketplace with common rules for all operators in the market.

Nonetheless, the problems persisting in subsectors of road transports (both passenger carriages and goods transportation) impede further progress and a series of issues related to environment, market access (licensing and management) will have to be settled and harmonized in accordance with the *acquis* and introduced into the national legal framework (Table 31).

In the field of railway transport further and stronger efforts are needed in order to ensure convergence to the *Acquis* norms. As much as activity conditions are concerned, Moldova resembles Albania and Macedonia (FYROM), where the state monopoly is preserved, and sharply differs from Bulgaria (EU member) and Croatia (candidate country).

In the area of air-transport, emphasis should be put on creation of the institutional capacities to observe safety and issuance of the licenses for the airlines, in accordance with Directive 2004/36. The airport infrastructure and their operation

should comply with safety, security, efficiency, capacity and environment protection (mostly referring to noise pollution) criteria. This is one of the responsibilities of the National Authority in civil aviation. This authority should also tackle other economic activities, such as monitoring financial situation and business strategies of the airlines (Regulation 2407/92), tariffs established by these airlines (Regulation 2409/92), and a Code of conduct for computer reservation systems (of 24 July 1989).

Currently, the air-transport sector is passing through significant quality changes due to Moldova's participation in EU 'Single European Sky' Program which focuses on management of air-traffic, cutting operational costs and harmonization of safety standards. Moldova accomplished most of these goals through participation at the ATM 2000+ Program.

Table 31 National normative acts harmonized with the *acquis communautaire*

<i>National normative act</i>	<i>Corresponding Acquis</i>	<i>Note</i>
Law on forwarding agents	CE Directive 96/96;	New normative act to be adopted
Code of inner-water transport of the Republic of Moldova; amendments and addenda to the Code of motor transport. Law 116-XIV of 29.07.1998.	Agreement on the international occasional carriage of passengers by coach and bus (INTERBUS Agreement), CE Directive 96/96;	New normative act
Amendments and addenda to the Law on transports no.1194-XIII din 21.05.1997.	Protocol referring to the Conference of the Transports Ministers, CE Directive 96/96;	Needs to be adjusted
Amendments to the Government Decision no. 920 (30.08.2005) on the Nomenclature of authorizations, permits and certificates for legal entities and natural person undertaking entrepreneurial activities, issued by the central administrative authorities and their subordinate institutions	Agreement on the international occasional carriage of passengers by coach and bus (INTERBUS Agreement); Protocol referring to the Conference of the Transports Ministers	Needs to be adjusted
Law no. 273-XIII (09.11.1994) on identity acts from the national passport system	Directives 2000/30/EC and 89/459.	Needs to be adjusted
Law no. 131-XVI (07.06.2007) on safety of traffic, Government Decision on mandatory technical testing of all motor vehicles and their trailer;	Regulation 3820/85	Currently, 6 workshops performing instalment and servicing of tachographs are available in Moldova
draft Government Decision on work and free hours of the passenger carriages crews Law no. 1318-XII (02.03.93)	Regulations 3821/85 and 2135/98, as well as Directive 92/6	Regulation on issuance of driving licenses, organization and undertaking of exams, and conditions to access the traffic need to be adopted.

Assessment of the Moldova's needs for promotion of transports sector euro-integration

There is need for increasing assistance for consolidation of the institutional capacity of the main state authority responsible for regulating the transports sector. Training of specialists, inclusively through the EU Twinning Programs, would be quite useful in this respect. These programs may also help national authorities with establishing working contacts with counterpart institution in the EU member states.

Another priority would be negotiation of the increased transit quotas (cabotage) for Moldovan companies to enhance their capability to face competition pressures of the EU enterprises with higher capitalization. For instance, the 10 states which acceded in 2004, except Slovenia, benefited from increased quotas prior to accession. The role of the government is crucial both in negotiating parity of the transit permits for road transport and in developing the pan-European routes passing through the territory of Moldova.

Transports sector plays quite an important role in the national economy, although a number of constraints impede its development and result in poor logistics and high costs for transporting goods by the Moldovan companies. At the same time, only

road and railway transport play significant role and this sector has some competitive edge on the regional scale. Therefore, establishment of clear-cut priorities in rehabilitation and development of the transport sub-sectors is of paramount importance while financial resources remain scarce.

Data show that in majority of developed countries 85% of goods transportation (as tonnage) is covered by road transport and is undertaken at a distance of up to 150 km. Yet, at distance of up to 500 km 97% of goods are transported employing motor transport. International practice shows that at such distances road transport is the most efficient and cheap.

At the same time, 90% of goods (in value terms) and 80% of goods (as units) are transported via road transport. Given the geographical dimensions of the Republic of Moldova, there is probably no viable alternative to the road transport. Apparently, developments in the Moldovan transports sector support this idea.

Furthermore, one of the main outcomes of overcoming the major infrastructure constraints may be the positive effects over economic development in general. For example, the World Bank statistics shows that average rate of economic effects of the road rehabilitation projects considerably exceeds the effects of other infrastructure projects conducted by this organization.

Banking services

One important step towards the harmonization of the legislative framework of the national banking system with the EU directives and standard acts was the development by the National Bank of Moldova of the Law on the currency regulation which was recently approved by the Parliament of the Republic of Moldova and entered into force in January 2009. The law establishes the general principles of currency regulation in Moldova, the rights and responsibilities of the residents and non-residents, as well as the competences of the currency audit authorities and the responsibilities of the currency audit agents.

Another important aspect was the recent adoption of the Law on Credit History Bureaus which was developed considering the EU directives and the international standards in the field and it is to enter into force on 1st of March 2009. The process of development began in 2004 as a result of a feasibility study that showed that the domestic market is prepared for the creation of such structure, which is actually very important from both credit suppliers' and customers' perspective since it puts forward greater stability and safety, as well as higher access to credits. The creation of credit history bureaus contributes also to the significant reduction of costs related to the analysis, information and decision-taking process of loan extending. The provisions of the named law apply to all the banks and their clients, as well as to the leasing companies, small credit associations and insurance companies. The supervisory and licensing authority of the credit history bureaus was nominated to be the National Committee of the Financial Market (NCFM).

Important amendments were recently effected to the Law on financial institutions which is the primary law on regulating the domestic banking system and to the Law on the National Bank of Moldova. The essential aspects were the provision of a new fundamental objective of the National Bank and namely, the insurance and maintenance of price stability, the elimination of the monetary financing, the prohibition of giving of instructions to the National Bank and the enhancement of the legal consultation of the NBM. The minimum quantum of the Tier I capital or

otherwise core capital was established to be 100 million MDL or the equivalent of 7.6 million Euro for all the banks, which according to the EU Capital Requirements Directive in force as of January 1, 2007 should be at least 75 million Euros. The new law also eased procedures and requirements for the opening of foreign banks' branches on the Moldovan market.

It is worth mentioning that as a result of the effected amendments to the regulatory framework and as result of growing interest from the part of European banks towards Moldovan banking services market, the foreign participation in the banking sector's assets increased from 49% in 2004 to 72.5% in the first semester of 2008. However a large part of non-residents own only minority shares in banks. Banks with majority foreign ownership hold only 23% of the sector's total assets and according to the recent IMF assessment of the banking sector of Moldova, „the majority of foreign holdings belong to investors that are not internationally highly-rated financial institutions, with a significant percentage of the owners being residents in offshore centres“³³.

According to the recent assessment effected by the IMF on the compliance with the revised Basel Core Principles (BCPs), “bank supervision and regulation remain reasonably comprehensive and, with some exceptions, adhere to the BCPs as revised in October 2006”³⁴. As main issues which still need to be addressed were identified the following:

- the lack of an official agreement with the NCFM regarding an effective cooperation in the supervision field, considering the fact that in Moldova already are in place certain financial products (e.g., life insurance) that resemble bank products;
- certain problems on having access to full information on ownership structure of certain banks;
- deficiencies in the areas of large exposure limits and connected lending, which are related to the lack of full information on certain bank owners;
- weaknesses in consolidated supervision that include the lack of power for the NBM supervisors to extend supervision to bank holding companies or banks' sister companies and the necessity to set up communication mechanisms with the respective “host” supervisors of the four Western European banks that have established subsidiaries in Moldova (Banca Comerciala Romana, owned by Erste Bank established a Moldovan subsidiary, Veneto Bank purchased Eximbank in 2006, Societe Generale acquired Mobiasbanca in 2007, and Unibank was purchased by an Austrian venture capital fund).

All in all, it may be assumed that the eventual arrival of new investors from the European banking market would foster competition and as a result would contribute to a higher diversification of services and also improved know-how in the banking field.

³³ IMF Country Report No. 08/274, “Republic of Moldova: Financial System Stability Assessment—Update”, August 2008

³⁴ Ibid.

Labour movement

Moldova's most important source of external financing is not merchandise exports but the labour services of Moldovan citizens working abroad. In 2007, fob exports of goods amounted to USD 1,361 million whereas total remittances from labour migrants, defined as compensation of employees from the income account of the balance of payments plus workers' remittances from the transfer account, were USD 1,491 million (balance of payments data at www.bnm.md). Approximately one in three households receives remittances, typically from a current or former household member. Although data on remittances are less reliable than on trade in goods, a plausible estimate is that up to one half of the remittances were sent by Moldovan workers based in the European Union (Luecke, Mahmoud, Pinger 2007). This section elaborates on the direct and indirect effects of labour migration and remittances on the Moldovan economy and discusses, against this background, the possible role of labour migration in Moldova's negotiations with the EU on a Deep and Comprehensive Free Trade Agreement.

International labour migration and remittances exert a pervasive influence on the Moldovan economy. Remittances now amount to about one third of Moldova's GDP while roughly one in four Moldovans of working age works abroad for at least part of the year. The direct effects are apparent from the share of remittances in household income. According to unpublished data from the 2007 Household Budget Survey, remittances make up more than one half of household income, on average, in households with a member working abroad. In all other households, remittances from migrants who do not belong to the same household account for about 8 percent of income, on average. Since remittances are typically underestimated in household surveys, these figures likely represent a lower bound for the true direct income effect of remittances.

Because migration and remittances in Moldova are large compared with the labour force and domestic output, respectively, they also exert important indirect effects by changing the structure of the Moldova economy. After the economic crisis of the late 1990s, unemployment and underemployment in Moldova were wide-spread and the average monthly wage amounted to US\$ 29 in 1999. By 2007, labour shortages were found in some occupations and the average wage was US\$ 170. Wage growth was sustained and underemployment reduced because the domestic labour supply declined due to migration. In this sense, Moldovan workers at home benefited from migration through its positive impact on real wages.

The growing inflow of remittances since 1999 substantially affected imports, government finance and domestic demand for non-tradable goods and services. Merchandise imports grew 6-fold from 1999 to US\$ 3.6 billion in 2007 while remittances grew more than 13-fold to US\$ 1.5 billion. As approximately two thirds of government revenue is derived from taxes on imports (value added tax and, to a lesser extent, import duties), imports sustained government revenue and thereby contributed to the relatively stable macroeconomic environment that Moldova has enjoyed since the crisis of the late 1990s. Stable and growing government revenue allowed the government to increase public sector wages and pay employer contributions to the pension fund in a timely manner, which in turn helped to ensure that pensions were paid on time. In this sense, recipients of social transfers and consumers of government services benefited from remittances indirectly through their stabilizing influence on government revenue.

Higher disposable household incomes due to remittances were spent not only on imports, but also on domestically produced (non-tradable) goods and services. As a result, output of non-tradable goods and services rose, helping to sustain Moldova's remarkable GDP growth by a total of 55 percent from 1999 to 2007. This GDP growth is all the more remarkable because fixed investment only picked up from its low, crisis level after 2005 and the Moldovan domestic labour force declined throughout the period due to migration. Much of the growth in GDP must therefore have been due to strong domestic demand for non-tradable goods and services where productive capacity was apparently not fully utilized initially; this would have allowed output to grow with only limited fixed investment until 2005.

Given the huge importance of remittances for many households as well as for the Moldovan economy as a whole, the question arises of whether the Government of Moldova should use negotiations on a Deep and Comprehensive FTA with the EU to push for more legal employment opportunities in for Moldovans in the EU. Many current labour migrants, both in the EU and elsewhere, reside in their host countries illegally (up to one half in the case of the EU; Luecke, Mahmoud, Steinmayr 2009) or find themselves in unregistered employment. Reportedly, transport to the EU without a legal visa (i.e. either clandestinely or with forged documents) costs a first-time Moldovan labour migrant up to Euro 4,000. With legal residence and employment, migrants would enjoy higher net earnings and run a lower risk of falling victim to various forms of exploitation. Particularly if additional legal employment opportunities were created through temporary or circular migration schemes, the benefits for Moldovan citizens and for the Moldovan economy as a whole would be considerable.

Generating more legal employment opportunities for Moldovans in the EU has recently become even more pressing as a result of the global financial crisis and its negative impact on the Russian economy, especially the construction sector. For the first time since 1999, available data from the NBS Labour Force Survey suggest that the number of migrants abroad has declined, year-on-year, over four consecutive quarters (Q4_2007 to Q3_2008). Electronic transfers from individuals abroad, an early indicator of remittances, stagnated on a year-on-year basis in October and November 2008, after growing consistently by between 20 percent and 70 percent per year from 1999 to 2007. These observations suggest that migration and remittances may not continue to grow in coming years as they have in the past.

Migrants in the EU are employed in a reasonably wide range of sectors, some of which would seem fairly insensitive to macroeconomic developments (e.g. domestic care services for the old and disabled in aging societies). By contrast, more than one half of Moldovan migrants in Russia (which in turn hosts two thirds of Moldovan migrants overall) are employed in the construction industry and are now apparently suffering from the output decline in this sector. The prospect that such a large group of migrants may experience a sudden reduction in demand for their services calls for measures to diversify migrants' destination countries away from Russia.

Because of the large potential benefits from enhanced legal employment opportunities in the EU, we believe the Government of Moldova should put the issue of more legal employment opportunities in the EU centre-stage in its strategy for European integration. Institutionally, the topic could be approached in FTA negotiations or through other channels, such as the recently initiated Mobility Partnership with the EU. On the one hand, many international trade agreements include provisions on labour movement between partner countries (for an overview see IOM 2008). While these provisions are often limited to small groups of workers,

such as managerial personnel in multi-national enterprises, this is not a necessary restriction. Since the EU has expressed a general preference for “enhanced” FTAs that go beyond the requirements of Art. 24 of GATT 1994, Moldova could argue that freer movement of labour is one “enhancement” that would provide large and unequivocal benefits to Moldova and would generate popular support amongst Moldovans for European integration.

On the other hand, if other existing institutional frameworks such as the Mobility Partnership prove to be more appropriate to advance legal employment opportunities for Moldovans in the EU, the Government of Moldova may still wish to preserve a political linkage between freer international labour movement and the more “new” trade topics that would be covered in FTA negotiations. Approximation to the *Acquis Communautaire* in areas such as competition and subsidy rules, energy, etc. would benefit Moldova in the long run, but entail substantial administrative and adjustment costs up-front. Just as free movement of labour is one of the constituent “freedoms” of the EU single market (the others being the free movement of goods, services, and capital), the Government of Moldova could argue that progressive integration between the EU and Moldova should not exclude the one “freedom” that would be of greatest benefit to Moldova, i.e. labour movement.

Conclusions

- For Moldova to benefit from an FTA with the EU it crucial to achieve full implementation of WTO Agreement on Sanitary and Phytosanitary (SPS) Measures. In the wake of WTO accession in 2001, Moldova committed itself to applying these standards and harmonizing its standards with those of the EU, however so far these commitments did not materialize. In many commodities, discordance with international food and animal safety standards has been a major obstacle on Moldovan agricultural exports to the EU. In meat products, dairy products, poultry and live animals, Moldova is far away from European SPS standards and cannot export to the EU unless it fulfils them. If no progress is achieved in elaboration and practical implementation of the European SPS standards, Moldovan producers of agricultural products will not be able to compete with European companies either on domestic or European markets.
- Despite strong growth of the trade in goods between the EU and Moldova, the trade and cooperation in energy sector has lagged much behind. Moldovan is totally dependent on energy imports mainly from the East, therefore, the euro-integration of the Moldovan energy sector is of paramount importance for the stable development and modernization of Moldova. The Government of Moldova has developed a national Energy Strategy envisaging gradual approximation of the Moldovan energy market towards the European one and establishing necessary preconditions for fully-fledged integration. However, the Strategy is implemented very slowly and this approximation will probably take more time than initially expected. EU can be of real help for Moldova on its way of developing energy sector and becoming more integrated in the European networks. The most important issues that can be part of a Deep and Comprehensive FTA in energy sector should cover three most important areas: regulatory reform, liberalization of the energy market and diversification of supply, and strengthening local production capacities and transit infrastructure.

- For the Moldovan transports sector the main barriers for development is underdeveloped road and railway infrastructure that resulted in growing transport costs and worsening safety risks in transit. There is a poor coordination between road and railway infrastructure development and with the market demand for transports sector development. Slow renewal of auto-coach fleet and lack of investments in the wagons, led to 'ageing' of the equipment used and losing access to the developed markets with higher environmental standards. In the national development programs for transport sector there are no clear-cut priorities, while the modernization of the national legislative framework with the European one is slow and uneven. Passenger carriage is excessively regulated by the governmental authorities, while the transportation of the goods is under-regulated, especially in areas requiring cooperation of more authorities. Because of this, there are persisting technical and logistical obstacles for fast passage of frontier, especially referring to the agricultural and other perishable goods. All these obstacles can be easier overcome if Moldovan government enters good cooperation with the EU with the aim of consolidating the institutional capacity in the transports sector (especially via TWINNING programs) and channelling more investment to the development of transport infrastructure. Besides removing technical and obstacles, the government has some important things to do. One of the priorities to follow is negotiating parity agreements both with EU member states and non-EU countries to the East. Not of less importance is negotiation of higher transit quotas (cabotage) for transport operators from Moldova.
- Although important steps were made and progress registered regarding the harmonization of the legislative framework of the national banking system with the EU directives and standard acts, as well as with the Basel Committee on Banking Supervision international standards on capital adequacy and the Core Principles for Effective Banking Supervision, there still remains important room for improvement and further work in the named direction. The banking system indicators show an important level of consolidation and soundness, however the risk management systems of the banks need to be further developed and improved, especially in what concerns the risk timely recognition and forecast. The range of offered services by the Moldovan banks is very limited and underdeveloped in comparison with those offered by the banks from the EU member-states, although certain progress towards the diversification of the services is noticeable.
- Moldova's most important source of external financing is labour services of Moldovan citizens working abroad. Roughly one half of the remittances were sent by Moldovan workers based in the European Union. However, most of them are working under no legal conditions and social protection. Because of this, Moldovan Government should use negotiations on a Deep and Comprehensive FTA with the EU to push for more legal employment opportunities in for Moldovans in the EU. With legal residence and employment, migrants would enjoy higher net earnings and run a lower risk of falling victim to various forms of exploitation. Since the EU has expressed a general preference for "enhanced" FTAs that go beyond trade, Moldova could argue that freer movement of labour is one "enhancement" that would provide large and unequivocal benefits to Moldova and would generate popular support amongst Moldovans for European integration.

6. Main conclusions and recommendations

Is an FTA necessary for Moldova?

This question has to be addressed from two main perspectives.

- The first one is economic. The research conducted for this study has shown that both positive and negative consequences of a simple FTA for Moldovan economy are rather limited. The agricultural sector is expected to be the main loser if import tariffs are removed swiftly. However, current practice of the EU suggests that a simple FTA with Moldova will not cover the agricultural products, therefore under this conditions a FTA would not bring about any palpable difference to the Autonomous Trade Preferences. A Deep and Comprehensive FTA covering the agricultural products and providing for a free circulation of the labour and services would differ very much from a simple FTA. In this case, the positive effects would come in short term from liberalizing the circulation of the labour force and services, while in long term the economic effects would stem from convergence of the Moldovan institutional environment to the European one and from increased investment, income and output.
- From the political perspective, Moldova would gain in three aspects from an FTA with EU.
 - Either a simple or a Deep and Comprehensive FTA would give Moldova a sense of stability for the trade regime with EU. Any FTA would be an international agreement committing all parties to respect the contractual clauses, while the Autonomous Trade Preferences are provided unilaterally by the EU and can be unilaterally suspended or reviewed.
 - The second aspect is that with an FTA would put the Moldova's trade with EU on the equal footing with the trade with CIS countries. Moldova has declared its objective to join in long-term the EU, but it has no trade agreement with the latter, while its trade is (at least formally) liberalized with the CIS countries.
 - And finally, reaching a trade agreement with EU may help Moldova to become more attractive for the Transnistrian region and to help create economic links which eventually will encourage the parts to the conflict to reach a sound solution to the conflict. Transnistrian companies may benefit from all advantages that an FTA will enact provided that they enter into Moldova's legal space and they meet all quality and technical standards necessary to export the products to EU markets.

Is an FTA feasible?

It is clear that either simple or Deep and Comprehensive FTA is feasible for the EU, both in economic and political terms. Even though Moldova has the necessary natural potential to increase at least twice its agricultural output in the next decade, in no case is Moldova able to "destabilize" European markets or to affect

significantly the price for any product. In fact, it is expected that Moldovan exporters would remain price takers and not turn to price makers in the foreseeable future.

In case of Moldova, we believe that an FTA not covering agricultural products (both from Moldovan and EU side) is immediately feasible for our country. Moldova has already one of the most liberal trade regimes in the world and opening its trade with EU would not change too much its current trade conditions. An FTA providing for reduction or abolition of the customs tariffs would lead to negative effects for many Moldovan producers which in any case would not be able to compete with European farmers. The negative effects of a Deep and Comprehensive FTA can be moderated by negotiating longer transition periods for the agricultural products and for a number of sensitive industrial goods.

General recommendations for the Moldovan government

- Economic simulations show that a simple FTA with EU would not bring much additional value for the Moldovan economy, while a Deep and Comprehensive FTA would create stronger positive effects both in a short-term period (static effects) and in a longer perspective (dynamic effects). This is why Moldovan government should aim for a Deep and Comprehensive FTA in its negotiations with the EU. There will be also many political gains for Moldova from signing a Deep and Comprehensive FTA with EU. With a bilateral free trade agreement, Moldova will have a more predictable trade framework with the EU. Secondly, a free trade agreement with EU will put EU on equal footing with the CIS countries and thus consolidate the economic foundation for enhancing its political links and preparing Moldova to meet requirements for an eventual membership in the future. Finally, an EU-Moldova free trade agreement will help consolidating Moldova internally and contribute to finding a political solution to the Transnistrian problem. Ultimately, this will positively reflect in the country national security framework and create a sense of trust on Moldova as a state.
- Both Moldova and EU are economically ready to create a Deep and Comprehensive Free Trade Area. A Deep and Comprehensive FTA would not bring any negative effects for the EU and may create some negative effects for some Moldovan producers. However, it is clear also that it not worth to protect Moldovan producers permanently from competition from the part of the EU producers. These negative effects can be smoothed by negotiating longer transition periods for a number of agricultural products (especially, sugar, meat and dairy products) and for a number of industrial goods (carpets, clothes, skins, paper, and paperboard). We believe that EU will accept transition periods which will be quite comfortable for Moldova. However, the most important sign that the Moldovan government should convincingly send to Moldovan producers is that transition periods will eventually end. In the future this will reduce the impact of different lobby groups and reduce the corruption. If credible and consistent, the negotiations process itself may create positive impulses and support those reformatory exponents in the Moldovan government that face fierce bureaucratic opposition against the reforms which are necessary to consolidate economic growth and country's competitiveness.

- After a long transformational recession, in early 2000s Moldova entered a period of economic growth. Thanks to some domestic reforms and to propitious international economic environment, in 2006-2008 the economic growth in Moldova has shown some positive changes by moving from a consumption-based model to investment-driven growth. It is vitally important for Moldova to encourage further the domestic and foreign investments into its economy in order to make the growth sustainable and to set a path of convergence to the economic development standards of the Central and Eastern European countries. The European integration process that Moldova has embarked upon and the relocation of production facilities from the Eastern members of the EU to cheaper locations beyond the current EU border in the East will serve as beneficial impetuses in this regard, provided that Moldovan government is able to eliminate all institutional, administrative and other policy-factors affecting negatively the investment. A Deep and Comprehensive Free Trade Area with the EU would trigger dynamic economic effects that would positively impact the investment in Moldovan economy.
- During its transition period, Moldova has suffered dramatic economic restructuring, moving from an agricultural-based to a services-based economy. The Moldovan government has to understand that the long-term goals of becoming EU member and of making the country economically more competitive may impose necessary reforms that will further reduce the role of agriculture and increase the role of other sectors. Taking into account Moldova's demographic and territorial factors, it is clear that the only way for Moldova to achieve higher economic competitiveness while mitigating social costs associated to reforms is to provide alternative non-agricultural employment opportunities to the rural population. This will impose significant changes to the fiscal and SME policies, in order to channel more investment in labour-intensive sectors in rural areas. Gradually allowing EU companies to buy agricultural land with investment purpose may prove to be a necessary precondition to compensate for the shortage of domestic investment and to reorient the Moldovan rural economies from subsistence agriculture to industrial processing of agricultural products and to provision of agriculture-related services.
- EU can provide a very significant support to the creation of the technical and quality standards infrastructure which is necessary for the Moldovan agricultural producers to get their products exported to EU markets. Setting up EU accredited laboratories and animals traceability system are the most urgent priorities from this perspective. Moldova does not have necessary human and financial resources to afford implementation of these projects and the EU support is indispensable.
- In the industrial sector those Moldovan companies that succeeded to become part of the European supply chains have shown the most rapid growth of production. This is particularly the case of such sectors as textiles, apparel and shoes. It is highly recommendable to the Moldovan government to further encourage Moldovan companies to integrate in the European production networks and to join European industrial and business groups. It is clear, however, that the Moldovan companies themselves have to play the central role in this regard and to become members or associates to existing business and industrial groups. The same refers to labour unions, NGOs and

other organised forms of the Moldovan civil society, even though expected economic effects in their case are smaller.

- It is also necessary to further encourage the entrance of the European capital on the Moldovan financial market. With respect to the entrance of the EU capital in the Moldovan banking sector, in the recent years there were many positive developments, but there is much smaller amounts of the EU capital in the insurance sector, capital market and other financial subsectors. The EU banks that bought shares in Moldovan commercial banks have significantly contributed to the current stability of the Moldovan banking sector. In order to avoid entrance of speculative capital that may affect the stability of the sector, it will be necessary for the Central Bank of Moldova and the National Commission for Financial markets to adopt and enforce carefully the relevant European regulatory standards in respect to local and foreign financial institutions operating on Moldovan markets.
- Energy sector is of vital importance for Moldovan economy, especially taking into account the fact that Moldova does not have its own energy resources in necessary amounts. Integration with the EU energy market will be a step in the right direction for Moldova to reduce its energy vulnerabilities. In this context, it is important for Moldova to ensure adoption and effective implementation of the main energy acquis as outlined in the National Energy Strategy of the Republic of Moldova, especially of EC Directive 2003/54/EC (26.06.2003) and EC Regulation 1228/2003/EC (26.06.2003) which are key European acts that establish rules for proper functioning and integration of power markets. The National Energy Strategy is a key sector document which requires regular monitoring and implementation assessment. The authorities should scale up efforts aiming at seeking funds needed for proper implementation of the strategy. Key directions, such as, consolidation of transit and production capacities should be financed in priority fashion and in this regard negotiations with the European Commission should be part of the negotiations of the general agreement between EU and Moldova.
- For the energy market to function properly it is necessary that Moldovan government provides for a full independence of the National Energy Regulation Agency (NERA) with respect to tariff policy, completely eliminate tariff distortions (cross-subsidizing rates) and allow for tariff establishment according to the voltage of distribution lines. Feasibility of transferring NERA from subordination to the Government to the Parliament subordination should be examined as a step towards fuller independence of the Agency. Currently the national energy market access is not fully liberalized. The Moldovan authorities should seek full liberalization of the national energy markets (both power and gas) via bilateral and multilateral (as soon as Ukraine and Moldova both become ECT members) negotiations. For integrated energy market to function the Moldovan regulating and other relevant agencies should become fully interoperable with the EU counterparts. Implementation of the EU TWINNING projects in this area will be very helpful and they should start as soon as possible.
- Moldova's economic integration with EU would have been much higher if a good transport system were in place in Moldova. The institutional capacity of the main regulatory bodies in transports sector should be consolidated in

order to fill the gap between Moldovan and European counterparts. The EU TWINNING projects implementation in Moldova would help in this respect and they should start as soon as possible. In order to help Moldovan operators facing competition pressures on the community markets the Government of Moldova needs to undertake negotiations on the increased transit quotas (cabotage) for Moldovan operators. The Government should also focus on ensuring license issuance on the basis of parity agreements between Moldova and main partners.

- The Moldovan authorities should also seek development of the pan-European routes passing through Moldovan territory. Given limited financial resources the Government should pay more attention to setting clear priorities in transports' infrastructure and subsectors development, with emphasis on road transport and rail road connections. More efforts should be aimed at attracting EU assistance in infrastructure development as well as ways to involve local resources in infrastructure rehabilitation. The efforts aimed at re-adjustment of the national legislation to the EU acquis in the transports sector should be re-energized since commonality of legal norms will foster integration of the markets.
- There is a clear need to strengthen the analytical capacity of the government agencies in the area of trade policy formulation and negotiations. At the current stage, the efforts of the international donors in trade capacity building should be directed towards the core government agencies and development of public private partnership of addressing the problems and constrains. Current applicable trade legislation should be systematically revised in order to drop all WTO-inconsistent measures, and elaborating an effective mechanism of implementation of make real use of benefits given by multilateral trading system environment. In this respect, the EU may provide necessary expertise for Moldova to review all documentary requirements for customs, licensing and certification procedures with a view to: (a) obtain the data directly from the source rather than impose this on economic agents, (b) carry out regular checks on the validity of the information provided, and (c) exempt companies that are considered as reliable from those documentary obligations.
- A number of technical measures are necessary in Moldova's trade policy. Without these measures in place, exports may not be able to capitalize on the benefits that an FTA would offer. Moldovan government has to simplify the registration procedure with customs area offices and abolish the confirmation procedure, which does not seem to serve any purpose other than imposing advance payment of duties (which themselves contravene the Kyoto Convention). Presently, the VAT drawback for exporters tends to occur with considerable delays and mainly in the form of offsets rather than cash generating considerable extra costs of exporting. The Government should harmonize the system of VAT drawback for all sectors and to put in one regulation. Regulatory environment for the treatment of inputs under the inward processing regime is complicated and controversial. It should be cleared as soon as possible and all inputs for all sectors under the inward processing regime be exempted from VAT and customs duties.

- There is a need of standards reform on multilateral level. National standards should coincide with harmonized international standards if better export capacity is desired. Harmonized standards should be comprised of a limited number of mandatory technical regulations based on international standards and code of good practice in this area. An aggressive program to eliminate informal barrier to trade should be carried out in respect to documentation required for export of goods and import of inputs necessary of production of products to be exported. A number of technical regulations covering the goods subject to mandatory certification requirements that form the core of Moldovan competitive sectors, shall be adopted as soon as possible, following the EU approach and harmonization. The quantitative restriction measures for meat and cheese products shall be notified to WTO Secretariat and brought in line with WTO commitments of Moldova. A nomenclature of goods subject to import and export licensing or authorization shall be defined and notified to WTO according to licensing procedures.
- A Trade Barriers Regulation (TBR) instrument, similar to one operational for EU, aimed at helping Moldova's businesses overcome trade barriers both internally and externally, and thereby develop their activities overseas shall be established as soon as possible. A complaint system shall be created based on which the revision of legislation should be based on. Ensure functionality and operation of TBT and SPS, as well GATS enquiry points to enable the Government of Moldova and authorized public authorities to answer all reasonable enquiries from EU as a WTO member, and other interested parties, as well to provide to local entrepreneurs relevant information and documentation about specific requirements: applicable standards, conformity assessment procedures, bilateral or multilateral arrangements on these areas.
- Labour migration and migrants' remittances have been the key drivers behind Moldova's economic growth. Even though the role of migration in the economic growth is expected to decrease somewhat in the future, migration will remain a salient feature of the Moldovan economy and Moldovan society. About one third of the Moldovan migrants are presently in the EU countries. However, most of them are working under no legal conditions and social protection. Moldovan government should use negotiations on a Deep and Comprehensive FTA with the EU to push for more legal employment opportunities for Moldovans in the EU. With legal residence and employment, migrants would enjoy higher net earnings and run a lower risk of falling victim to various forms of exploitation. Since the EU has expressed a general preference for "enhanced" FTAs that go beyond trade, Moldova could argue that freer movement of labour is one "enhancement" that would provide large and unequivocal benefits to Moldova and would generate popular support amongst Moldovans for European integration.

Appendix: pertinent technical aspects of CGE Models

This technical appendix draws on Fagnäs (2004). Computable general equilibrium (CGE) models are typically used to analyze the effects of policy changes (e.g. trade liberalization) and other shocks throughout the economy. CGE models may be viewed as an extension of multi-sector input-output and fixed price models and incorporate the indirect effects and price effects of policies. They apply to the time period it takes for an economy to move from one equilibrium to another, in response to a policy change or other shock. In this sense, a comparative-static CGE model generates a medium-term solution - a situation where the initial disequilibrium after the shock has disappeared, but before dynamic effects (such as additional investment or disinvestment) set in.

The database for a CGE model is the social accounting matrix (SAM) for a given year, a square matrix that describes all commodity and monetary flows among the economic agents in an economy at a suitable level of aggregation (production sectors, households, enterprises, government, the "rest of the world"). Depending on the chosen level of aggregation, the SAM combines information from input-output accounts, national income and product accounts, household budget surveys, labor force statistics, and fiscal statistics, among other data sources. Although our model is only for a single country (Moldova) and takes world market prices of exports and imports as given, CGE models may also be implemented for several countries simultaneously or for the global economy disaggregated by regions and countries, requiring multi-country SAMs.

Naturally, simulation results based on CGE models depend heavily on assumptions about functional forms (such as Leontief vs. CES production functions), underlying parameters (such as substitution elasticities in production and demand functions), and macroeconomic balancing mechanisms. Traditional neoclassical CGE models are based on Walrasian general equilibrium theory: Firms maximize profits, and wages and prices adjust to equate supply and demand in factor and product markets, with factors of production fully employed. By contrast, models in the structuralist tradition use different assumptions about macroeconomic balancing mechanisms and the way markets clear, incorporating features of short-run macroeconomic models with wage or price rigidities and unemployment. Most CGE models focus the real side of the economy; money is neutral and asset markets are not explicitly modelled.³⁵

The IFPRI standard CGE model on which our model for Moldova is based (Lofgren et al. 2002) allows for a range of alternative assumptions that reflect both the structuralist and the neoclassical tradition. It is a real-side model without explicitly modelled asset markets or inflation. Production is carried out under perfect competition by sectors ("activities") that maximize their profits, subject to a multi-level production function and given the prices of their inputs, outputs and factors. Within each activity, the top level of the production function consists of a Leontief function that combines an aggregate of the factors of production (value-added) on the one hand and intermediate inputs on the other hand. Factors of production (high-skilled workers, low-skilled workers, capital, etc.) are combined according to a

³⁵ For an overview over the main CGE modeling approaches with references to appropriate literature, see Robinson (2003).

constant elasticity of substitution (CES) function, while the various intermediate inputs are used in fixed proportions (Leontief function).

Domestic output of a given good (say, food) may be produced by different sectors (say, small farms and commercial agriculture). Aggregate domestic output is allocated to exports and domestic sales based on profit maximization with given prices, a given quantity of total output and imperfect transformability between domestic sales and exports in line with a constant elasticity of transformation (CET) function. Exports to each trading partner region are similarly determined on the basis of a CET function that implies imperfect transformability between exports to the various regions. Export supply is therefore determined by the domestic price of exports to each region relative to domestic sales, where the domestic price of exports is the given price of exports to each region, adjusted by export taxes and the exchange rate. Thus the model assumes a small, open (i.e. price-taking) economy.

Domestic demand for a given good is the sum of demand for private (household) consumption, government consumption, investment, and intermediate inputs. If a commodity is imported, domestic demand is for a composite commodity of imports and domestically produced goods, with the optimal mix determined through cost minimisation via a CES aggregation function. Demand for imports from each trading partner region is similarly determined through a CES aggregation function for imports from the various regions. This so-called Armington assumption allows for some decoupling of domestic prices from world market prices and ensures that simulated export and import responses to policy changes will be broadly realistic. The supply of imports is infinitely elastic at given prices in each region. The domestic price of imports is the given local-currency price in each region adjusted by the exchange rate and tariffs.

Households receive income from factors of production supplied to production activities (e.g. labor) and transfers from institutions, particularly the government and other households. Households save, consume, and pay direct taxes and transfers; direct tax rates and the propensity to save are determined by the chosen closure rules for the government and savings-investment balances (see below). Household consumption is allocated across different products according to a linear expenditure system (LES), which implies in this case that the consumption of individual commodities is a linear function of total household consumption expenditure. Household types may differ in their demand elasticities and consumption shares for each commodity.

The macro closure rules for the CGE model define the mechanisms by which the three macroeconomic balances are determined: (i) the current government balance; (ii) the current account balance, and (iii) the savings and investment balance. First, the government receives its income from taxes and transfers from the rest of the world and decides on the level of current spending (government consumption plus transfers to households) vs. government saving. The IFPRI standard model allows us to choose between two basic closure rules for the government balance. Either direct tax rates are fixed, but government saving (the real fiscal balance) adjusts in response to changes in government revenue; or direct tax rates adjust to maintain a given level of government saving.

Second, foreign savings are equivalent to the current account deficit and hence define the external balance (i.e. the balance of inflows and outflows of foreign exchange). Transfers between the rest of the world and domestic institutions and factors (including migrant remittances) are exogenous to the model and given in

foreign currency. Thus the current account balance is driven by the balance of exports and imports. The alternative closure rules in the standard IFPRI model leave either the real exchange rate or the current account balance constant, requiring the other variable to adjust.

Third, the savings-investment balance states that total investment is the sum of private investment, government investment, and foreign savings. In this static model (comparative-static with simulation exercises), investment is not driven by the rate of return on capital but by the availability of savings. The standard IFPRI model allows for two basic approaches: (i) private savings are investment-driven such that the marginal propensity to save adjusts to a given level of investment; (ii) investment adjusts to the level of savings, given a fixed marginal propensity to save.

Factor market closures determine the mechanisms that equilibrate the supply and demand of each factor of production. In line with general equilibrium theory, each activity uses a set of factors up to the point where the marginal revenue product of each factor equals its wage. There are two wage variables: the economy-wide wage, and an activity-specific wage that is the product of the economy-wide wage and an activity specific distortion term. There are three possible closure rules: (i) a factor is fully employed and mobile, giving rise to a uniform economy-wide wage; (ii) a factor is fully employed and immobile, giving rise to sector-specific wage rates; or (iii) a factor is mobile but may be unemployed, allowing the wage to be set as a policy parameter.

In creating the numerical ("computable") model to be used for a particular set of simulations, the first step is to decide on functional forms (e.g. Cobb-Douglas vs CES), certain parameter values (e.g. substitution and transformation elasticities) and closure rules, taking into account any available econometric estimates of relevant parameters for the same or other economies as well as economic common sense. On this basis an algebraic model can be generated whose remaining undefined parameters (such as technology parameters in production functions) can be calculated from the SAM in such a way that when the numerical model is solved it replicates exactly the values in the underlying SAM. In other words, the numerical model is "calibrated" to the SAM. Once this "base run" has been established, the exogenous parameters in the model (whether assumed or calculated from the SAM) can be manipulated to reflect a policy change (e.g. a cut in import tariffs) or other shock. The model can then be solved for the new set of exogenous parameters to describe the new hypothetical equilibrium once the economy has adjusted to the change in exogenous parameters.

Although simulation results may depend crucially on the assumptions made in the modelling process, which are often not strictly verifiable, CGE modelling is widely used for the assessment of policy impact and policy options in many different policy areas, from trade liberalization to environmental taxes. The CGE model may be thought of as representing the best possible description of an economy, given the available data as well as the researcher's informed priors based on relevant literature and other country experiences. This feature renders CGE models uniquely appropriate as a versatile and easy-to-use tool in policy impact analysis.

References

- Emerson, Michael et al. (2007). The Prospect of Deep Free Trade Between the European Union and Ukraine. Brussels (CEPS).
- Fagernäs, Sonja (2004). Analysing the Distributional Impacts of Stabilisation Policy with a CGE Model: Illustrations and Critique for Zimbabwe. ESAU Working Paper 4, Overseas Development Institute. London.
- Fernandez-Arias, E. and M. Spiegel (1998). "North-South customs unions and international capital mobility". *Journal of International Economics*, Vol. 46, No. 2, pp. 229-51.
- IOM (2008). Regional Trade Agreements web page (downloaded November 28, 2008). <http://www.iom.int/jahia/Jahia/about-migration/developing-migration-policy/migration-trade/regional-trade-agreements>.
- Lerman, Zvi and Dragos Cimpoeis, "Duality of Farm Structure in Transition Agriculture: The Case Of Moldova", Paper Presented At The IAMO Forum 2006, Agriculture in the Face of Changing Markets, Institutions and Policies: Challenges and Strategies, June 29 – July 1, 2006, Halle, Germany.
- Lofgren, Hans et al. (2002). A Standard Computable General Equilibrium (CGE) Model in GAMS. IFPRI. Downloadable: <http://www.ifpri.org/pubs/microcom/5/mc5.pdf>.
- Luecke, M. and Andrea Szalavetz (1999). Export Reorientation and Transfer of Know-how and Technology – The Case of Hungarian Manufactured Exports. In: M. Fritsch and H. Brezinski (eds), *Innovation and Technological Change in Eastern Europe*, Cheltenham: Edward Elgar.
- Luecke, M. and D. Spinanger (2004). Liberalizing International Trade in Services: Challenges and Opportunities for Developing Countries, Discussion Paper No. 412, Kiel Institute for the World Economy, Kiel (retrieved from <http://www.uni-kiel.de/ifw/pub/kd/2004/kd412.pdf>).
- Luecke, Matthias, Toman O. Mahmoud, Andreas Steinmayr (2009). Labor Migration and Remittances in Moldova, 2006-2008: The 2008 IOM-CBSAXA Household Survey. IOM Moldova Office, Chisinau.
- Luecke, Matthias, Toman O. Mahmoud, Pia Pinger (2007). Patterns and Trends of Migration and Remittances in Moldova. International Organization for Migration (IOM), Mission to Moldova. Chisinau 2007. Download: http://www.iom.md/materials/patterns_en.pdf.
- MIEPO, 2007, Investment & Export Promotion: Agriculture & Food Processing, Moldovan Investment and Export Promotion Organisation, September 2007.
- MNAF, 2006, Agriculture for Development - A Strategy for Moldovan Economic Growth, Moldovan National Agribusiness Forum Policy Paper, <http://fnam.md/eng/?p=34>.
- Muller-Jentsch, Daniel (2004). Deeper Integration and Trade in Services in the Euro-Mediterranean Regio. World Bank, Washington, D.C. and the European Commission, Brussels.
- Piazolo, Daniel. (2001). The integration process between Eastern and Western Europe. *Kiel Studies*, 310. Berlin: Springer-Verlag.

Robinson, Sherman (2003). Macro Models and Multipliers: Leontief, Stone, Keynes, and CGE Models. International Food Policy Research Institute (IFPRI), mimeo, September. Download:

World Bank (2007). Moldova - Managing Food Safety and Agricultural Health: An Action Plan, World Bank Working Paper, No. 42140.

www.ifpri.org/events/seminars/2003/20031014/robinson_thorbecke_EPIAM.pdf.

