



Aid for Trade Needs Assessment for the Republic of Moldova

Trade and Human Development

March 2011

United Nations Development Programme



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UNDP Regional Bureau for Europe and the Commonwealth of Independent States Manufactured in the Republic of Moldova

The **Aid for Trade agenda** is one of the most important development-related outcomes of the 2005 WTO Ministerial Conference in Hong Kong. It targets developing countries through strengthening their productive capacities, trade-related infrastructures and the ability to compete in regional and global markets. Trade plays an important role in development, although the relationship between trade and human development is not automatic. In order to be inclusive, trade has to be set in a human development framework. It needs to be conceived as a tool to enlarge the abilities and choices of people.

The Aid for Trade initiative covers the following categories:

- Trade policies and regulations;
- trade development;
- developing productive capacities;
- trade related adjustment, and;
- other trade-related needs.

UNDP's regional **Aid for Trade project** 'Wider Europe: Aid for Trade for Central Asia, Sout-Caucasus and Western CIS', financed in the context of Finland's Wider Europe Initiative, focuses on the identification of capacity gaps and technical assistance needs both at the national and sub-regional level in Central Asia, South Caucasus and Western CIS and support economic development in the areas located along the selected transport corridors, helping small entrepreneurs to gain from new trade opportunities.

The Wider Europe Initiative is Finland's harmonised regional development framework. The initiative targets the following themes: security, trade and development, information society development, energy and the environment and social sustainability. The framework includes three regional cooperation programmes - in Eastern Europe (Belarus, Moldova and Ukraine), the South Caucasus (Armenia, Azerbaijan and Georgia) and Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan).

The **Needs Assessments** produced under the Aid for Trade project form part of a long-term vision of developing trade capacities, which will benefit human development in the region. The recommendations presented are expected to constitute the basis for a second phase (2011 – 2013), focusing on the implementation of the recommendations developed in the national and regional Needs Assessments.

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ABBREVIATIONS

AfT Aid for Trade (programme)

AMS Aggregate Measurement of Support

ANRCETI National Regulatory Agency for Electronic Communications

and Information Technology

API Agro-processing industry

ATIC Moldovan Association of Private ICT Companies

CARIS Centre for the Analysis of Regional Integration at Sussex

CASE Center for Social and Economic Research (Warsaw)

CEE Central and East Europe

CEFTA Central European Free Trade Agreement
CIS Commonwealth of Independent States

CPI Consumer Price Index

CU Custom Union

DCFTA Deep and Comprehensive Free Trade Agreement

DFID Department For International Development of the United Kingdom

EBRD European Bank for Reconstruction and Development

EC European Commission

EU European Union

FDI Foreign direct investments

FTA Free trade agreement

GAPO Gross agro-processing output

GATS General Agreement on Trade in Services
GATT General Agreement on Tariffs and Trade

GII Gender Inequality Index
GDP Gross Domestic Product
HUI Human Development Index
HHI Herfindahl-Hirschman Index

HVA Harmonized System HVA Higher Value Added

ICT Information and communications technology

ILO International Labor Organization

IFAD International Fund for Agricultural Development

IMF International Monetary Fund

JSC Joint Stock Company

LLC Limited Liability Company

MA-TTRI Market Access Tariff Trade Restrictiveness Index

MCA Millennium Challenge Account

MDL Moldovan lei

MFN Most Favored Nation

MIEPO Moldovan Investment and Export Promotion Organization

MoF Ministry of Finance of the Republic of Moldova

NBM National Bank of Moldova

NBS National Bureau of Statistics of the Republic of Moldova

NEER Nominal effective exchange rate

nes not elsewhere specified

NGO Non-governmental organization

NRI Network Readiness Index

OECD Organization for Economic Cooperation and Development

PIRLS Progress in International Reading Literacy Study

PPP Purchasing power parity
PPPs Public-Private Partnerships
REER Real effective exchange rate
SDR Special Drawing Rights

SIDA Swedish International Development Cooperation Agency

SMEs Small and Medium Enterprises

SPS Sanitary and PhytoSanitary measures

TB Tuberculosis

TBT Technical Barriers to Trade

TIMSS Trends in International Mathematics and Science Study

TTRI Tariff Trade Restrictiveness Index

UNDP United Nations Development Programme

USAID United States Agency for International Development

USD Dollar of the United States of America
USSR Union of the Soviet Socialistic Republics

VAT Value Added Tax

WB World Bank

WDI World Development Indicators (publication of the World Bank)

WITS World Integrated Trade Solution

WTO World Trade Organization

EXECUTIVE SUMMARY

This paper aims at providing analysis of the foreign trade of the Republic of Moldova in close association with the country's human development and, based on this analysis, identifying possible interventions to be supported by the resources of the Aid for Trade programme.

The analysis conducted in the paper indicates that the trade performance is strongly linked to the macroeconomic developments in the Republic of Moldova; dynamics of GDP and exports and imports are mostly synchronized. Production and trade indicators grew rapidly in the pre-crisis period, suffered from a deep decline in 2009 and seem to recover well in 2010 as preliminary statistical data suggest. The role of trade is very high in the economy; not only the economy as a whole, but also majority of sectors are very much dependent on the international trade. Exports are mostly driven by the situation on the foreign markets and are not very sensitive to international price or real exchange rate changes; in contrast, imports are quite sensitive to price signals. This seems to indicate that domestic inflation developments are very important for imports dynamics, and in the case of the Republic of Moldova controlling inflation could be much more effective domestic market protection policy than explicit protectionist policies.

The human development level in the country somewhat exceeds its level of economic development. Sectors responsible for human development—education, health, environment protection etc.—are heavily dependent on public financing. It also follows from the data that government budget revenues are strongly dependent on the trade performance, so improvements in public financing of all human development activities are linked to the foreign trade development as well as with general increase in efficiency of public service delivery.

Low labour costs continue to be among the comparative advantages of the economy of the Republic of Moldova, but costs are growing and these advantages are disappearing rather quickly. Productivity growth and market access of many actual and potential participants of foreign trade in the Republic of Moldova is inhibited by different structural problems of the economy including regional inequalities, high degree of informality, inappropriate labour force skills etc.

Analysis of trade performance in recent years indicates that exports from the Republic of Moldova fall into three main groups: (i) wine and agricultural commodities, (ii) garments, footwear and some other products, which are registered as re-exports in official statistics, and (iii) services. Imports consist mostly of energy products and consumer goods. The share of capital goods in imports is less than one might wish to see in a developing country. Geographically, trade of the Republic of Moldova is split into two roughly equal parts: The European Union (EU) and the Commonwealth of Independent States (CIS); other partners' shares in exports and imports are much smaller. The share of products requiring higher labour skills and education is not large, but growing.

The current trade regime in the Republic of Moldova is liberal; the external environment for Moldovan exports is formally liberal too. In practice, trade is vulnerable to unilateral actions of the trade partners of the Republic of Moldova. Therefore, it seems that key trade policy issue is establishing more predictability in trade relationships with main trade partners. Significant changes in the trade regime could be anticipated in the short- and medium-term. This is related to the re-establishing of the CIS free trade area and formation of the Custom Union of Belarus, Kazakhstan and Russia as well as to the prospects of concluding Deep and Comprehensive Free Trade Agreement (DCFTA) with the EU and Free Trade Agreement with Turkey. These changes offer many opportunities for further trade development, expansion of exports, getting greater efficiency gains on domestics market, which are to result in better business and employment opportunities and general upgrade of legal and institutional environment in the economy. However, these moves towards further trade liberalization are not going to be costless; some sectors/population groups could lose from the change, and this issue needs to be addressed timely and properly.

Analysis of the business environment and investment performance demonstrates that business and investment climate is a key determinant of further development of trade in the Republic of Moldova. The costs of doing business seem to be even more serious issue for exports from the Republic of Moldova than trade policy in the narrow sense (tariffs and the like) and price competitiveness/real exchange rate issues. Improvements in performance of government agencies serving trade flows (customs, border controls, certification etc.), regulatory reforms, and investments into transport, financial and other infrastructure are needed for further trade development in the country.

There is a lot of evidence on direct linkages between trade and human development in the country. In general, increased openness of the economy positively contributes to growth of the country's human potential. Therefore,

overcoming the existing barriers for export expansion is a priority. As follows from the analysis of the trade regime and business climate, these barriers seem to be mostly on the supply side. So, sector-specific government and donor interventions, including those in the Aid for Trade framework, are needed to address these constraints for export growth.

The sectors of economy, which could benefit from donor support and produce a positive results in terms of human development, are:

- Agriculture and processing industry, the sector with still the largest employment among all other sectors; it provides incomes for the poorest segment of society rural population; this is the sector actively involved into exports, has well-established positions on foreign markets, but in acute need of adding value to commodities to be exported; the sector, which is capable of reducing regional inequality and positively affecting the environmental situation in the country;
- *Information and communication technologies (ICT)*, the sector with fast growing production and exports, providing jobs and creating demand for high-skill workers and modern forms of organization of production with potential spillovers to the education system and other sectors of the economy.

Analysis of the agriculture and agro-processing industry and ICT indicates that these sectors have great export potential. Improvement of export performance of these sectors could significantly contribute to the human development of the country in a number of ways including poverty reduction in rural areas, creation of employment opportunities for mobile, young and educated part of the population reducing incentives for them to migrate abroad, exerting some pressure on the government institutions to upgrade their arrangements and practices, building on demand for modernization of all cycles of the professional education system. Each sector has its own set of issues to be addressed in order to overcome existing barriers to export expansion. In agriculture and agro-processing, these relate to the technical barriers to trade, custom procedures and agricultural subsidies. In the ICT sector, key issues relate professional training of the labour force and establishing and maintaining competitive environment.

Key recommendations, which seem to follow from the contents of the study, include (detailed recommendations are provided in the attached action matrix):

- Maintain competitiveness of Moldovan production by conducting responsible macroeconomic policies including control of inflation;
- Continue liberalization of trade regime in the country through active participation in existing free trade arrangements and careful negotiation of new ones especially the DCFTA with the EU, which has a potential of greatly expanding export and investment attraction opportunities for the Republic of Moldova and upgrading legal and institutional environment in the country;
- *Improve business climate* in the economy through simplification and increased transparency of technical regulations, custom and border procedures, tax regime and other factors influencing business and investment activities in the country;
- Support investments into infrastructure needed for export expansion including both publicly provided roads and other transport facilities and privately provided storage facilities, logistics etc.;
- Evaluate and possibly re-channel the agricultural subsidies and other forms of enterprise support towards greater efficiency and more impact in terms of export expansion;
- *Maintain competitive environment* in the export-oriented sectors of the economy and support SMEs trying to become exporters of their produce;
- Support exports of higher value added products by creating for them friendly environment in all government services dealing with exports;
- Improve professional education system in the country in order to supply exporters with properly trained labour force; this could be achieved through better interaction of educational establishments with private sector, creation of flexible forms of professional training, coordination of curricula with the needs of companies operating in the export-oriented sectors;
- Strengthen the human and institutional capacity of the country to conduct relevant trade policy analysis by supporting the government and non-government sector experts' capacity to produce comprehensive economic and social analysis of policy proposals using modern analytical tools including quantitative models.

1. INTRODUCTION

This paper has been prepared in the framework of the project assessing needs for Aid for Trade in the Republic of Moldova. The purpose of this paper is to provide analysis of foreign trade in close association with the country's human development and, based on this analysis, to identify possible interventions to be supported by the resources of the Aid for Trade programme.

The paper has been prepared by UNDP consultants, Roman Mogilevskii and Eugeniu Hristev.

The paper has the following structure. Chapter 2 describes economic and social environment for the development of trade in the Republic of Moldova with section 2.1 devoted to the analysis of economic developments and section 2.2 looking at human development issues. Chapter 3 provides an extended analysis of trade in the Republic of Moldova. Section 3.1 provides a review of the country's trade performance in recent years. Section 3.2 describes the country's trade regime and trade policy. Section 3.3 addresses the business climate and investment record of the country, and section 3.4 explicitly tackles trade-human development linkages. Chapter 4 discusses the current situation and problems in two sectors of the economy, which appear to be promising from the point of view such as potential AfT interventions: agriculture and processing (section 4.1) and information and communication technologies (section 4.2). Chapter 5 contains conclusions and recommendations for the AfT programme in the Republic of Moldova.

2. ECONOMIC AND SOCIAL ENVIRONMENT

The analysis of the linkages between foreign trade of the country and its human development requires an understanding of the economic and social environment for the trade development. Therefore, this chapter provides a brief summary of the recent (2006-2009) developments in the economic and social situation with a focus on actual and potential factors affecting the foreign trade in the Republic of Moldova¹.

2.1. Economic developments

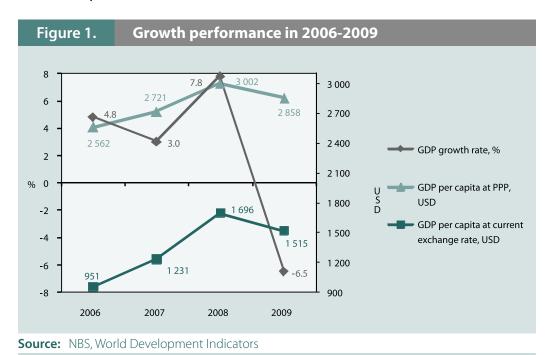
Moldova's economic performance has been mixed in recent years. Similar to many other countries, the economy demonstrated good GDP growth rates after 2000 with an annual average of 5.6% from 2001 to 2008, although the economic growth somewhat slowed down in 2006-2007 (Figure 1). The GDP per capita exceeded 1,000 USD and then 1,500 USD; this allowed the country's position in the World Bank's classification to be upgraded from *a low income* to a *lower middle income* group. The gap between GDP per capita at current exchange rates and at PPP reduced which indicated an increase in domestic prices for non-tradeable commodities. However, the economy was hard hit by the global economic crisis; the GDP declined by 6.5% in 2009. In 2010, the economy resumed its growth influenced by the regional post-crisis recovery trends. The GDP growth rate for the I-III quarters appeared to be 6.5%. If this growth rate is maintained in the last quarter, the economy will return back to the 2008 level.

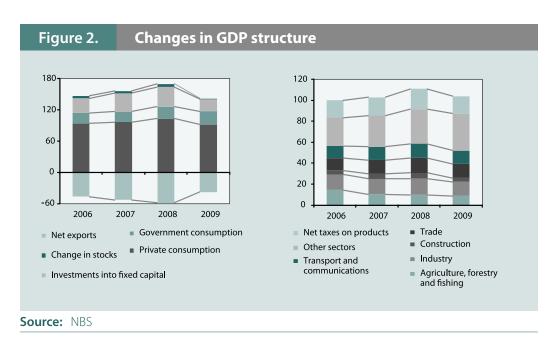
The growth in 2001-2008 was driven mostly by domestic demand and especially by private consumption (Figure 2a). Investments into fixed capital also grew substantially in 2006-2008. In contrast, government consumption was growing very slowly during the times of economic boom. The growth of private consumption and investments fueled demand for imports, which increased enormously (see Table 1); thus, despite the considerable improvement in export performance (Table 1) net exports were on the level of -53% GDP in 2008. In 2009, private consumption, investments, imports and exports shrunk sharply, while government consumption increased both as a share of GDP and in real terms. The latter may be related to the pre-election government spending hikes in 2009 [IMF 2010].

¹ Everywhere in this paper, analysis does not cover Transpiestria The 2010 recovery is driven mostly by the investments into fixed capital and exports of goods and services, which increased by 12.8% and 7.9% correspondingly in January-September 2010 in comparison to the same period of 2009; private consumption also increased by a rate of 5%; finally, government consumption is almost stagnant

with a growth of 1.3%. The growth of private consumption and investments are accompanied by a rapid (12.2%) recovery of imports. Apparently, the pre-crisis model of growth has been fully re-established; no structural change seems to happen in the economy due to the crisis.

Sector-wise, the main contributors to this growth were trade, real estate operations, construction, transport and communications and some other market services (Figure 2b). Industry grew insignificantly, and agricultural production reduced quite substantially both as a share of GDP and in real terms.





Major sources of the economic growth in the pre-crisis period were inflows of remittances from the Moldovan workers abroad and FDI (Table 1). In 2006-2008, the remittances reached the level 31-35% of GDP, which put the Republic of Moldova to one of the first places in the world on this indicator. In 2009, both remittances and FDI fell dramatically with immediate implications for private consumption and investments. This seems to be the main channel through which the global crisis impacted the economy of the country. In 2010, remittances and especially FDI grew well again. So, the economic performance of the Republic of Moldova during the periods of both good growth and crisis demonstrated the high degree of the economy's sensitivity and vulnerability to the external shocks.

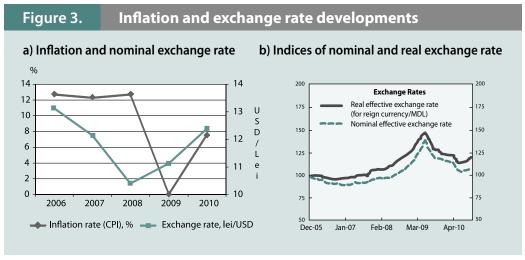
Table 1. Se	ble 1. Selected indicators of the balance of payments, million USD								
	2006	2007	2008	2009	Jan-Sept 2009	Jan-Sept 2010			
Exports of goods	1 061	1 373	1 646	1 332	927	1 045			
Exports of services	466	625	837	669	481	485			
Imports of goods	-2 644	-3 671	-4 869	-3 276	2 276	2 608			
Imports of services	-488	-650	-839	-713	515	529			
Remittances, ² gross inflow	1 176	1 491	1 888	1 199	846	918			
FDI inflow	240	534	713	128	102	153			

Source: NBM

As follows from Table 1, international trade is very important in the economy of the Republic of Moldova. In 2006-2008, imports of goods were at the very high level of about 80% GDP, and exports of goods were much lower, but also considerable (close to 30% of GDP) and growing. Unlike many other countries, exports of services are as important in the Republic of Moldova, starting from 2008 the ratio of exports of services to exports of goods exceeds 50%. In 2009, imports fell considerably, reacting to the reduction in remittances, FDI and other foreign exchange inflows, which were financing these imports. Exports fell too reflecting the decline of demand on foreign markets for the goods and services from the Republic of Moldova. In 2010, one could see the reverse trend in the dynamics of exports.

In the period of growth, the country had pretty high inflation with rates (measured by CPI, Figure 3a) above 12% per annum. At the same time, lei (MDL), the national currency, was appreciating against the US dollar similarly to many other currencies in the region. The combination of the high inflation and strengthening of the nominal exchange rate resulted in strong (up to 50% for three years) real appreciation of lei (Figure 3b), which increased price competitiveness of imports on the domestic market and decreased price competitiveness of Moldovan exports on external markets. Importantly, the changes in price competitiveness well correspond to the expected dynamics of imports (very fast growth in 2006-2008, sharp fall in 2009 and increase again in 2010) and do not seem to have any impact on the exports' dynamics

² Compensation of employees + workers' remittances. ics³. The fall of inflation to zero and nominal devaluation of the leu at the end of 2008 – 2009 resulted in a real depreciation of the national currency and restoration of export competitiveness of goods produced in the Republic of Moldova. In 2010, with resumption of inflation the real exchange rate of lei to USD appreciates again.



Source: NBS, NBM, IMF

For a country with GDP per capita below 2,000 USD, Moldova has a large government. The expenditures of the national public budget systematically exceed 40% of GDP (Table 2), and in 2009, the expenditures went as high as 45.5% GDP. In 2006-2008, these high expenditures were balanced by high budget revenues, a substantial part of which consists of the trade-related taxes (VAT on imports and taxes on international trade). The decline in trade (especially imports) in 2009 led to the reduction in these taxes' collections by 2.7% GDP and corresponding drop in total budget revenues. As a result, the government had to increase the budget deficit up to hardly sustainable level of 6.8% of GDP. Now the government faces the need to cut its expenditures back. As data for three quarters of 2010 suggest, the government has started to solve this task, the national public budget deficit have been halved in real terms in comparison to the same period of the last year.

Table 2. National public budget in 2006-2009, % GDP							
	2006	2007	2008	2009			
Revenue	39.8	41.7	40.6	38.7			
Of which trade-related taxes	13.5	13.6	13.4	10.7			
Expenditure	40.2	42.0	41.6	45.5			
Deficit	-0.3	-0.2	-1.0	-6.8			

Source: MoF

Developments on the labour market in the period of time under consideration were mostly consistent with dynamics of main macroeconomic indicators. The total size of the labour force is gradually decreasing on the background of almost constant total population number and increasing share of people of working age (Table 3). This means that labour force participation rate is falling – mostly due to the labor migra-

3 Exports were increasing in 2006-2008 despite their falling price competitiveness on foreign markets, and decreasing in 2009, when their relative price on these markets fell.

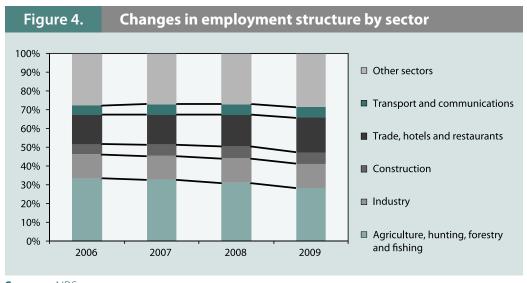
tion abroad, which is known to be a very important phenomenon in the Republic of Moldova. In 2008, the NBS estimated the total number of labour migrants at 318.3 thousand or one-quarter of the total workforce of the country. In the pre-crisis period, the economic growth resulted in falling unemployment among all categories of workers (including more vulnerable women and youth) and a growth in real wages. The latter increased by more than one-third in 2006-2008. In 2009, with fall of the GDP, the unemployment rate has significantly increased, while real wages continued growing due to large increases in salaries of public sector employees. In 2010, the unemployment rate continued increasing despite of the GDP growth (6.5% in IIIq2010 in comparison to 5.7% in IIIq2009); the average wage in November 2010 increased by modest 2.6% in real terms in comparison to the period one year ago; so, based on this preliminary data it seems that the post-crisis recovery have not improved the situation on the labor market so far. In absolute terms, the average wage is still quite low by European standards (about 250 USD per month in 2009-2010); however, the wages have been growing quickly and, most probably, would continue to increase in the conditions of very large wage differential between domestic labour market and the markets for Moldovan labor migrants abroad.

Table 3. National public budget in 2006-2009, % GDP						
2006	2007	2008	2009			
3 581	3 573	3 568	3 564			
	9	6				
18.3	18.2	17.6	17.1			
71.8	71.5	72.1	72.7			
9.9	10.3	10.3	10.2			
Thousand people						
1 357	1 314	1 303	1 265			
629	626	622	586			
1 257	1 247	1 251	1 184			
	9	6				
7.4	5.1	4.0	6.4			
5.7	3.9	3.4	4.9			
17.1	14.4	11.2	15.4			
1 697	2 065	2 530	2 748			
14.2	8.4	8.7	8.6			
	2006 3 581 18.3 71.8 9.9 1 357 629 1 257 7.4 5.7 17.1 1 697	2006 2007 3 581 3 573 9 18.3 18.2 71.8 71.5 9.9 10.3 Thousan 1 357 1 314 629 626 1 257 1 247 7.4 5.1 5.7 3.9 17.1 14.4 1 697 2 065	2006 2007 2008 3 581 3 573 3 568 % 18.3 18.2 17.6 71.8 71.5 72.1 9.9 10.3 10.3 Thousand people 1 357 1 314 1 303 629 626 622 1 257 1 247 1 251 % 7.4 5.1 4.0 5.7 3.9 3.4 17.1 14.4 11.2 1 697 2 065 2 530			

Source: NBS

The changes in employment structure by sector (Figure 4) are mostly reproducing the shifts in the sector structure of production (Figure 2b): the share of employed in different service sectors (trade, hotels and restaurants, real estate, construction, communications etc.) is increasing, while the share of employed in agriculture is shrinking. Apparently, agriculture is losing its position of the main source of incomes and employment for rural population being replaced by services⁴ and especially external labour migration. The labour force participation rate in rural areas is almost 5% lower than in urban areas; this means that workers from rural areas migrate more than workers from towns.

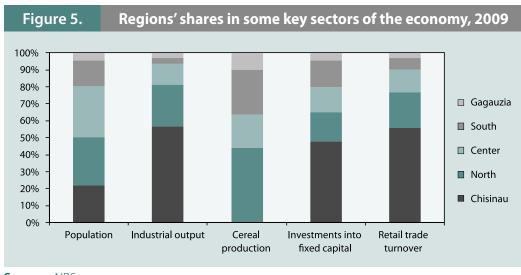
⁴ Often, this is associated with migration of workers from rural to urban areas.



Source: NBS

The economy of the Republic of Moldova faces some structural problems. There are significant regional inequalities in the country. Of five economic regions distinguished in the official statistics (Figure 5), Chisinau stands as a centre of industrial production, investments and trade, while other regions have a more agricultural orientation. However, the North is more developed industrially; and the South and Gagauzia attracted considerable investments recently.

In the economy of the Republic of Moldova, the informal sector is fairly large. According to NBS/ILO estimates, 38.3% of total employment in 2003 could be considered informal; in different years the informal economy's share in GDP was estimated in the range 30-45% (e.g., [Schneider, 2002]). According to available anecdotal evidence, the share of informal economy has not diminished since the early 2000s. For the purposes of this study it is important that informal enterprises have much fewer possibilities to participate in foreign trade in comparison with formal ones as for-



Source: NBS

eign trade transactions (crossing the borders, custom clearance, produce certification, access to trade finance etc.) are necessarily much more formal than operations on domestic market. So, a large part of the economy lacks access to foreign markets just because of its informal status.

Another structural problem is a mismatch in labour force skills' supply and demand. The economy does not specialize yet in production of technologically sophisticated products for domestic or foreign markets (see also section 3.1). Then, it requires a lot of workers with professional/general secondary education; at the same time, according to the NBS data for 2008 up to 80% of graduates of the general/vocational secondary education establishments continue their education in the universities despite of the limited demand for specialists with tertiary education. Then, in 2008 more than half of 21 thousand university graduates received degrees in law, economics, international relations, i.e., in professions, which are not in high demand on the labor market. Finally, according to the Moldovan entrepreneurs' anecdotal evidence, even when the formal education of some job candidates fully matches vacancy profile, their actual set of skills might not be appropriate because of either insufficient quality of education, or mismatch between the previously received training and modern requirements to the profession. According to the Enterprise Surveys of the World Bank 2009, entrepreneurs in the country consider inadequately educated workforce as a second largest problem for their businesses (conceding only to access to finance); it is perceived as a more important issue than corruption, tax regime, licenses and other problems, which are traditionally discussed as major impediments for doing business.

Other important structural issues in the economy of the Republic of Moldova are its small size, which does not allow many businesses to enjoy economy of scale, and underdevelopment of infrastructure. These issues are considered below in the section 3.3.

It follows from the above discussion that the trade performance is strongly linked to the macroeconomic developments in the Republic of Moldova. The analysis indicates that:

- The role of trade measured as shares of exports and imports in GDP is very high in the economy;
- Exports are mostly driven by the situation on the foreign markets and are not very sensitive to international price changes; in contrast, imports seem to be quite sensitive to price signals;
- Dynamics of imports is strongly correlated with changes in domestic demand, especially in private consumption and investments;
- Government budget revenues are pretty much dependent on the trade performance;
- Employment seems to be correlated with production and, importantly, exports, i.e., sector shifts in employment (e.g., increase in the share of services) are broadly consistent with the changes in sector structure of production and exports;

- Low labour costs continue to be among the comparative advantages of the economy
 of the Republic of Moldova, but these costs are growing and advantages are disappearing rather quickly;
- Productivity growth and market access of many actual and potential participants of foreign trade in the Republic of Moldova is inhibited by different structural problems of the economy including regional inequalities, high degree of informality, inappropriate labor force skills etc.

2.2. Human development achievements and challenges

According to the UNDP's Human Development Index (HDI), the Republic of Moldova made some progress in recent years; its value increased from 0.606 in 2005 to 0.623 in 2010. The position of the country in the global HDI rankings (99 of 169 in 2010), however, has not changed since 2005. This indicates that the pace of the country's human development was the same as the global average. In fact, the Republic of Moldova's 2010 HDI value coincides with the world average (0.624).

An important dimension of human development is a freedom from material deprivation measured by poverty rate. According to the available data (Figure 6a), a substantial reduction in poverty had taken place in 2007: the absolute poverty rate fell by 4.4% and extreme poverty rate by 1.7%. In the next two years no further poverty reduction has been registered. Poverty level depends much on the type of settlement, where people live (Figure 6b). The poverty rate in villages is twice as high as in big cities and one-third higher compared to small towns. This information demonstrates significant urban/rural inequality. It correlates well with the decline in agricultural production, which has been discussed in section 2.1 of the paper.

The record of progress in access to key services and decent living conditions is mixed (Table 4). In the area of education, gross enrollment ratio in general secondary education fell by 1.3% in 2006-2009; on the other education access indicator—the enrollment rate for pre-school programmes for 3-6 year-old children—a considerable increase by 5.4% has taken place for the same period of time. This illustrates contradictory trends in education enrollment. On the quality of education, as follows from

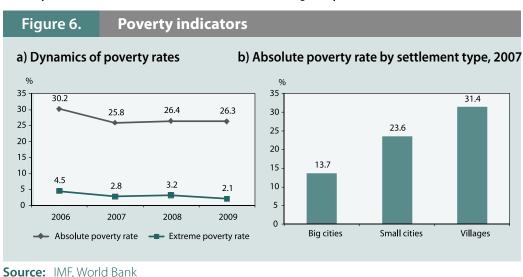


Table 4. Selected education, health and environment indicators							
	2006	2007	2008	2009			
Gross enrollment ratio in general secondary education, %	92.0	91.6	90.9	90.7			
Enrollment rate for pre-school programmes for 3-6 year-old children, %	70.1	72.6	74.4	75.5			
Life expectancy at birth, total, years	68.4	68.8	69.4	69.3			
Under-five mortality rate, per 1,000 live births	14.0	14.0	14.4	14.3			
Mortality rate associated with tuberculosis, deaths per 100,000 people	19.3	20.2	17.4	18.0			
Proportion of land areas covered by forest, %	10.7	10.7	10.9	10.9			
Share of population with access to improved water source, %	46.0	47.0	53.0	55.0			
Share of population with access to sewage, %	43.3	43.9	45.7	47.9			

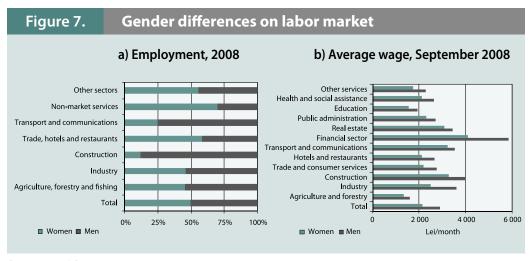
Source: NBS, UNDP

the results of international comparisons (PIRLS 2001 and 2006, TIMSS 2003), the Republic of Moldova fares pretty well; its schoolchildren demonstrated scores close to the international averages.

Another key human development area is the health status of the population. In 2006-2009, life expectancy at birth, which is a key health and general life quality indicator, increased substantially, but some other health indicators (e.g., under-five mortality rate and TB-associated mortality rate) did not demonstrate unambiguous improvement. For the same period of time, access of the population to clean water and improved sanitation has improved considerably. Other environmental indicators also seem to show some signs of improvement.

One of the central issues in human development is gender equality. On the aggregated level, the gender aspects of development are captured by the Gender Inequality Index (GII) introduced in the UNDP's 2010 Global Human Development Report. The Republic of Moldova ranks considerably better on GII than on HDI; based on 2008 data, it holds 40th place out of 138 countries. For the purposes of this study looking at the impact of trade on human development, gender (in)equality on the labour market is of particular interest. As illustrated by Figure 7a, there is almost no difference in total employment of men and women,⁵ however this hides huge differences in employment by sector. Women's employment is concentrated in nonmarket services (including education and health), trade, tourism and other market services, while men prevail in construction, transport and communications, industry and other sectors. Thus, women concentrate in sectors with lower wages, and men – in sectors with higher wages (Figure 7b). It also follows from the same Figure that in all sectors women receive less than men. So, the gender differences on the labour market are obvious and always unfavourable for women.

⁵ Although female unemployment rate is always higher than male's one (Table 3).



Source: NBS

The progress in human development in recent years has taken place against the background of a very high government social and environmental spending (Table 5). The share of the national public budget allocated to the government functions directly related to human development stays on the level about or above 70% of total government expenditures. This means that delivery of key social services is heavily dependent on the budget performance; any decline in the government resources, which is quite probable in the current still difficult economic situation, may endanger the achieved level of provision of these services. Apparently, in the mediumterm, deep efficiency-oriented reforms are to be implemented in the social sector, especially in social protection and social insurance. Meantime, international trade, which is an important determinant of the government revenues (see section 2.1), remains critically important for further human development of the country.

Thus, the Republic of Moldova is making some good progress in its human development, although it is not without problems and setbacks. Some of these problems require consistent and far-reaching reforms in the social sector, which are outside of the scope of this paper. However, some other key human development issues seem to be strongly related to the developments in foreign trade.

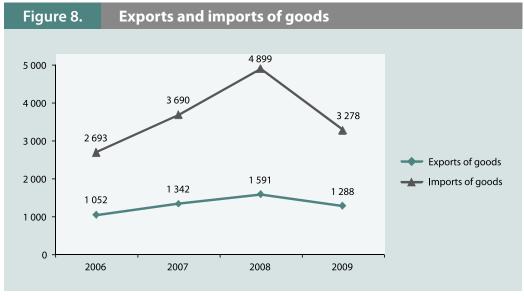
Table 5.	National public budget social and environmental expenditures							
		2006	2007	2008	2009			
			% C	IDP				
National public I	oudget expenditures - total	40.2	42.0	41.6	45.6			
Social and enviro	onmental expenditures - total	27.9	27.9	28.3	33.1			
Education		8.1	8.0	8.2	9.4			
Culture, art, spoi	rts and youth activities	1.1	1.1	1.0	1.0			
Health care		4.7	4.9	5.4	6.4			
Social protection	n and insurance	11.5	12.3	12.5	15.1			
Utilities and hou	sing	2.3	1.4	1.0	0.9			
Environment pro	otection and hydrometeorology	0.2	0.2	0.1	0.2			

Source: MoF

TRADE AND INVEST-MENTS PERFORMANCE AND POLICIES

3.1. Review of foreign trade

In 2007-2008 exports and imports grew by impressive average rates of 23% and 35% per annum correspondingly (Figure 8). This growth was caused by increase (in almost equal proportions) of both physical volumes of trade and international prices for traded commodities. The decline of trade in 2009 has also resulted from the fall in volumes and in prices. In 2010, as data for 11 months suggest, both exports and imports of goods have grown by 20.4% and 17.1% correspondingly.



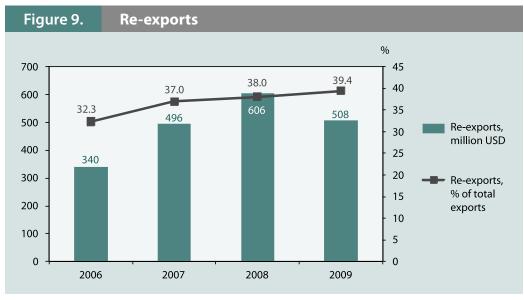
Source: NBS

Re-exports constitute a large part of the total Moldovan exports (Figure 9). The re-exports are growing consistently faster (or declining slower) than exports of goods originating from the Republic of Moldova; so, in 2009 the ratio of re-exports to total/gross exports has approached to the level of 0.4. Such high share of re-exports is not a common phenomenon in the world; the economic rationale for large-scale re-exporting activity is related to the geography, commodity composition and regime of trade with the country's partners. These are discussed below.

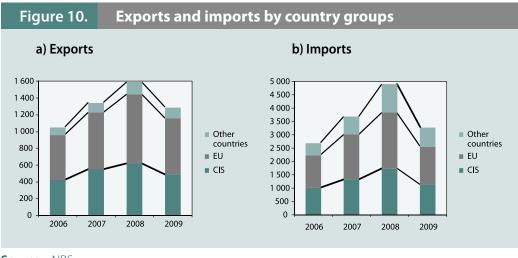
From the geographical point of view, a larger part of exports and imports is concentrated on two country groups – European Union and CIS.⁶ Shares of these two groups in the trade of the Republic of Moldova are pretty stable: about 50% of exports go to the EU and 40% of exports go to the CIS, and the Republic of Moldova

⁶ In this paper all former republics of the USSR apart from Baltic ones are included into this group despite their different current membership status in this organization. This is done because Moldova has the same trade regime with all of them.

receives about 45% of its imports from the EU and 35% of imports come from the CIS. Apart from CIS, the Republic of Moldova also belongs to another trade organization, CEFTA, but its share in the trade of the Republic of Moldova is rather small – about 0.6% of exports and 0.2-0.3% of imports. The role of other countries is not big – around 10% of exports and 20% of imports.



Source: UN COMTRADE database



Source: NBS

As follows from Table 6, the main trade partners of the country are the Russian Federation (export market No. 1 and import source No. 2) and Moldova's geographical neighbours – Romania (the second place in the list of export destinations and the third place in the list of importers) and Ukraine (export market No. 4 and the main source of imports). Other important trade partners include Italy, Germany, Belarus, Turkey, Poland and China (for imports only).

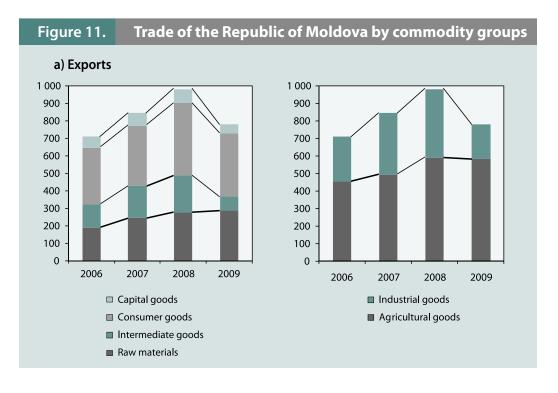
Table 6. Key trade partners of the Republic of Moldova						
	2006	2007	2008	2009		
		Millio	n USD			
	Exports					
Russian Federation	182.0	232.7	313.7	286.5		
Romania	155.6	211.2	335.8	239.7		
Italy	116.9	140.2	167.0	135.7		
Ukraine	128.8	167.9	142.8	81.3		
Belarus	74.0	82.0	92.7	80.7		
Germany	51.9	86.3	63.8	75.5		
United Kingdom	27.3	34.1	52.3	60.3		
Poland	39.2	48.3	56.1	33.7		
Turkey	28.5	32.1	33.4	33.1		
Switzerland	14.2	22.6	40.0	21.7		
	Imports					
Ukraine	516.5	687.0	839.0	458.8		
Russian Federation	417.0	498.6	666.1	373.2		
Romania	346.0	449.0	590.8	311.7		
Germany	214.1	319.3	364.5	252.3		
China	116.9	202.9	325.5	246.5		
Italy	196.3	269.3	306.2	231.5		
Turkey	113.8	166.8	231.9	172.4		
Belarus	74.6	118.7	199.1	137.4		
Kazakhstan	5.7	11.4	21.5	168.0		
Poland	73.4	89.1	121.3	87.6		

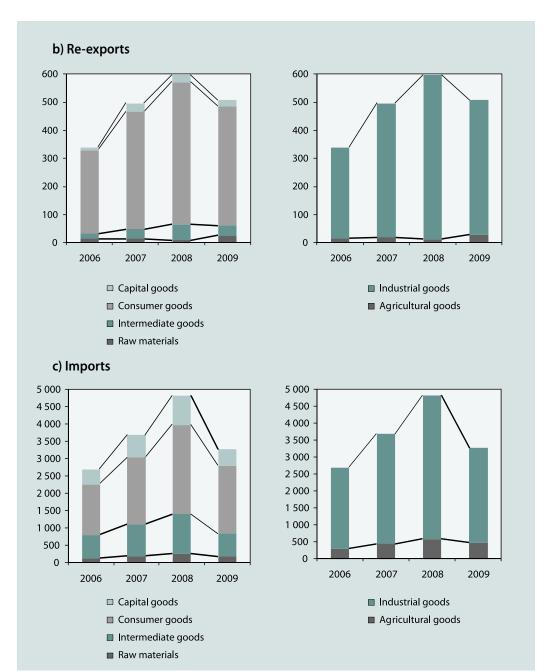
Source: NBS

Considering commodity composition of trade, it is useful to distinguish original exports from re-exports. Among exported commodities originating from the Republic of Moldova (Figure 11a), consumer goods and raw materials always prevailed and the shares of intermediate and capital goods were much smaller. In 2006-2008, shares of different commodity groups were relatively stable: consumer goods – 41-45%, raw materials – 27-29%, intermediate goods – 19-22%, and capital goods – 8-9%. However, the crisis affected intermediate and capital goods much more strongly than consumer goods and especially raw materials, which have even grown in absolute terms. So, as a result of the crisis, exports have somewhat skewed towards less sophisticated products (see Figure 12 and related discussion). As a reflection of that, the share of agricultural goods in exports increased from about 60% in 2006-2008 to 75% in 2009 with corresponding decline in the share of industrial goods. Key commodities exported by the Republic of Moldova include (Table 7) wine, vegetable oils and seeds, fresh fruits and fruit and vegetable juices, sugar, wheat and selected industrial goods (e.g., gypsum plasters). The exports of wine were falling in 2006-2007 reflecting problems with access to the Russian market; they recovered in 2008, when access to this largest market has been re-established, and fell again in 2009 - this time due to the losses on Ukrainian market.

Functional structure of re-exports is quite different (Figure 11b). About five-sixths of all re-exports are consumer goods; the shares of other commodity groups are small. Re-exports of agricultural goods are minimal, industrial goods compose around 95% of all re-exports. Key re-exported commodities (Table 7) are different garments and footwear (45-50% of total re-exports) as well as cables, wire and some furniture. Larger share of re-exports go to Romania, Italy and other EU countries, but also to Russia and Turkey. The commodity and geographical structure of re-exports allows developing a hypothesis explaining the logic behind this activity. Many entrepreneurs from Europe take advantage of cheap labour force in the Republic of Moldova and send their inputs for processing to the country and then import ready products back to the EU; this relates mostly to production of garments and some other commodities. The advantages of duty free regime could motivate re-exports to Russia. It is worth noting that with growing labour costs (see section 2.1) and the formation of the Custom Union of Belarus, Kazakhstan and Russian Federation (see the next section) the attractiveness of these re-exporting schemes may gradually diminish with time.

Consumer goods prevail in imports, too (Figure 11c); their share in total imports fluctuates in the range 50-60%. Intermediate and capital goods compose 20-25% and 14-18% of total imports correspondingly. Raw materials' imports are not big, about 5% of total imports. The Republic of Moldova imports mostly industrial goods, the share of agricultural commodities never exceeded 15%. Main imported commodities (Table 7) are energy products (gasoline, natural gas, electricity etc. – altogether about 20% of total imports), cars, tractors, different machinery, agricultural inputs and consumer goods.





Source: WITS web-site

	2006	2007	2008	2009
		Millio	n USD	
Exports	1			
Wine of fresh grapes (2204 ⁷)	160.8	106.3	153.4	128.7
Safflower, sunflower and cotton-seed oil, fractions (1512)	32.0	49.3	47.0	41.3
Nuts except coconut, brazil & cashew, fresh or dried (802)	30.1	38.7	35.1	39.6
Gypsum, anhydride, gypsum plaster (2520)	22.7	45.4	59.9	8.9
Glass bottles, flasks, jars, phials, stoppers, etc (7010)	27.5	39.4	41.7	22.5
Liqueur, spirits and undenatured ethyl alcohol <80% (2208)	23.2	25.2	37.7	26.2
Apples, pears and quinces, fresh (808)	12.9	22.3	25.2	44.6
Sunflower seeds (1206)	14.6	29.7	21.6	37.8
Fruit and vegetable juices, not fermented or spirited (2009)	17.3	48.8	16.9	17.9
Hot rolled bar, rod of iron/steel, in irregular coils (7213)	24.9	26.8	44.8	0.0
Solid cane or beet sugar and chemically pure sucrose (1701)	16.8	20.6	11.9	29.8
Wheat and meslin (1001)	21.6	6.1	9.2	36.5
Re-exports				
Insulated wire and cable, optical fiber cable (8544)	3.6	20.7	99.2	92.3
Men's or boys suits, jackets, trousers etc not knit (6203)	33.6	35.5	37.6	31.4
Women's, girls suits, jacket, dress, skirt, etc, woven (6204)	31.5	33.7	41.0	31.6
T-shirts, singlets and other vests, knit or crochet (6109)	23.4	30.2	22.6	16.9
Carpets, woven, not tufted, flocked (5702)	15.6	23.3	27.9	17.9
Women's, girls overcoats, capes, wind jackets etc, woven (6202)	18.7	22.9	22.6	18.0
Footwear with uppers of leather (6403)	18.6	25.2	26.0	11.8
Women's, girls blouses & shirts, knit or crochet (6106)	11.0	16.8	22.0	22.5
Other furniture and parts thereof (9403)	10.6	17.7	27.0	14.1
Jerseys, pullovers, cardigans, etc, knit or crochet (6110)	13.8	17.4	21.2	16.6
Imports	1	1	1	
Oils petroleum, bituminous, distillates, except crude (2710)	338.0	404.9	586.2	360.6
Petroleum gases and other gaseous hydrocarbons (2711)	218.1	256.8	333.5	326.0
Motor vehicles for transport of persons (except buses) (8703)	78.1	135.1	200.6	78.8
Medicaments, therapeutic, prophylactic use, in dosage (3004)	78.0	103.0	131.8	158.0
Electrical energy (2716)	73.1	87.3	138.0	0.4
Cigars, cigarettes etc., tobacco or tobacco substitute (2402)	42.6	58.6	68.7	76.8
Insulated wire and cable, optical fiber cable (8544)	24.2	36.5	77.8	58.4
Other furniture and parts thereof (9403)	28.3	41.8	60.4	35.3
Tractors (other than works, warehouse equipment) (8701)	14.1	58.7	70.3	19.8
Electric apparatus for line telephony, telegraphy (8517)	30.1	22.2	20.3	72.1
Refrigerators, freezers and heat pumps (8418)	28.5	42.7	39.3	23.2
Knit or crochet fabric, (6002)	25.5	32.0	34.0	40.8
Insecticides, fungicides, herbicides etc (retail) (3808)	18.0	30.2	45.7	27.2

⁷ Here and below in this table, four-digit HS 1996 commodity codes are provided in parentheses.

Source: UN COMTRADE database

Exports of the Republic of Moldova are pretty much concentrated on just few markets; the share of three largest markets is about or above 50% of total exports (Table 8). This concentration also has a tendency to increase with time; see the dynamics of the Herfindahl-Hirschman index (HHI)8 in the table. This high share signals on vulnerability of Moldovan exports - a change in trade regime with one of the key trade partners (as it happened with Russia in 2006) could significantly affect the overall trade of the country. Commodity concentration of exports is moderate with Herfindahl-Hirschman commodity concentration index's values consistently below 0.2. The change in the HHI values is mostly related to fluctuations in exports of only one commodity – wine (see the corresponding line in Table 7). Geographical concentration of imports is somewhat lower and has consistent downwards trend. One important reason for the de-concentration of imports in 2009 was partial switching from Russia to Kazakhstan in imports of natural gas. Judging on the HHI values, the commodity concentration of imports is also moderate with some trend to increase in 2008-2009 after the drop in 2007. In general, commodity and especially geographical diversification of trade seems to be a priority this diversification should make economic and human development of the country less sensitive to different exogenous shocks.

Table 8. Trade concentration indices						
	2006	2007	2008	2009		
Exports ⁹						
Market concentration						
Number of markets (countries of destination)	100	93	105	103		
Share of three largest markets	44.4	45.6	51.3	51.4		
Herfindahl-Hirschman market concentration index	0.2266	0.2286	0.2639	0.2622		
Commodity concentration						
Number of traded commodities ¹⁰	751	725	761	766		
Share of three largest commodities, %	22.2	15.3	19.7	20.9		
Herfindahl-Hirschman commodity concentration index	0.1579	0.1107	0.1265	0.1381		
Imports						
Market concentration						
Number of markets (countries of origin)	159	153	158	157		
Share of three largest markets	47.5	44.3	42.8	34.9		
Herfindahl-Hirschman market concentration index	0.2508	0.2377	0.2272	0.1979		
Commodity concentration						
Number of traded commodities	1090	1095	1098	1072		
Share of three largest commodities, %	23.5	21.6	22.9	25.8		
Herfindahl-Hirschman commodity concentration index	0.1392	0.1237	0.1312	0.1419		



here N – number of commodities/markets, - exports/imports of commodity i or to/from country i, V – total exports/imports. This index ranges from 0 to 1; the larger value of the index the higher concentration of trade.

Source: UN COMTRADE database

⁹ Including re-exports.

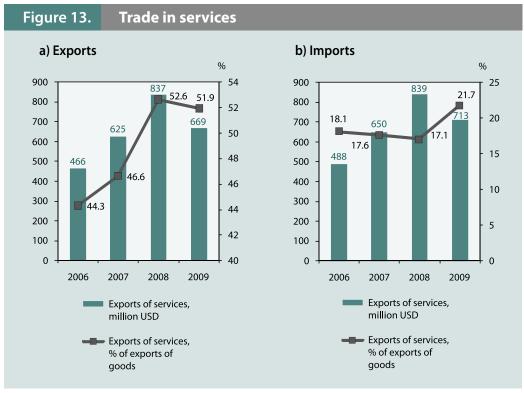
It follows from analysis of the commodity composition of Moldovan exports that these exports consist mostly of products with relatively low degree of technological sophistication. Estimations based on product sophistication index PRODY¹¹ show (Figure 12) that the share of products with PRODY>20,000 (i.e., products typical for exports of high-income countries) in total exports of domestically produced commodities in the Republic of Moldova has always been well below 10%. On the other side, this share was increasing between 2001 and 2008, but had fallen again in 2009. There is a diversified group of commodities (agricultural products, chemicals, metal articles, some equipment and instruments) falling into the category of relatively sophisticated products, which are exported in rather small quantities so far. This indicates on some slow structural shift in the economy towards manufacturing of more advanced products and finding niches for them on international markets¹². If this direction of change sustains, it would increase demand for skilled labor and education services providing the required skills (with spillover effects for lower levels of education); this seems to be a useful contribution to the human development of the country.



Source: UN COMTRADE database, authors' calculations

Trade in services is another important component of foreign trade in the Republic of Moldova. In 2007-2008, exports of services grew even faster than exports of goods (Figure 13) and faster than imports of services. Due to that, the traditionally negative balance of trade in services in 2008 has almost achieved zero level. In 2009, exports suffered more than imports, so the service trade deficit has somewhat widened again. Still, the trade in services is much more balanced than trade in goods.

- ¹⁰ Number of exported/ imported commodities at 4-digit level according to the HS 1996 classification.
- ¹¹ This index is a weighted average of the per capita GDPs of countries exporting a given product; see concept of the index and discussion of the notion of technologically sophisticated products and their significance for economic development in [Hausmann, Hwang, and Rodrik, 2007].
- 12 Although the global crisis caused some setback in this direction.



Source: NBM

Main categories of exported services include transportation, travel/tourism, and communications (Table 9). Construction and especially computer and information services are quickly growing export items; in 2009, the Republic of Moldova has already become a net exporter of these types of services. This dynamics of exports corresponds well to the changes in the production and employment structure (see section 2.1); the increase in exports of computer and information services provides additional evidence for availability and growth of the segment of the economy of the Republic of Moldova producing more technologically advanced goods and services. In imports of services, transportation and travel prevail.

Like with goods, the main partner of the Republic of Moldova in trade in services is Russia, followed by Romania, Ukraine and Germany (Table 10). Trade in services is well diversified geographically; the shares of three main partners in exports and imports do not exceed 40%.

Table 9. Trade in services by category				
	2006	2007	2008	2009
		Millio	n USD	
Exports				
Total	465.7	625.5	837.3	668.9
Transportation	197.0	263.8	357.0	253.5
Travel	115.2	167.7	212.0	168.3
Communications services	71.2	85.7	114.6	105.2
Construction services	10.7	15.0	15.4	26.8
Computer and information services	8.0	14.3	26.3	29.8
Other services	63.7	79.1	112.0	85.4
Imports				
Total	487.6	650.1	838.6	712.9
Transportation	172.1	245.3	324.9	256.8
Travel	189.6	232.6	287.7	243.0
Communications services	29.0	37.6	47.4	39.2
Construction services	4.2	7.3	9.6	24.3
Computer and information services	5.9	15.7	16.0	24.0
Other services	86.9	111.7	153.1	125.6

Source: NBM

Table 10. Trade in services by country	y											
	2006	2007	2008	2009								
		Million USD										
Exports												
Total	465.7	625.5	837.3	668.9								
Russia	80.5	116.7	150.0 139.0									
Romania	39.9	50.8	0.8 78.4 6									
Ukraine	31.1	33.9	53.2	28.5								
Germany	17.0	24.3	41.9	30.5								
Other countries	319.1	424.5	515.2	453.7								
Imports												
Total	487.6	650.1	838.6	712.9								
Russia	95.6	116.5	163.9 160.6									
Romania	42.6	73.5	97.1	97.1 85.5								
Germany	29.2	34.9	49.1	40.7								
Ukraine	21.2	30.3	46.0	27.9								
Other countries	299.0	395.0	482.6	398.2								

Source: NBM

Thus, exports from the Republic of Moldova consist of three main elements: (i) wine and agricultural commodities, (ii) garments, footwear and some other products, which are registered as re-exports in official statistics, and (iii) services. Exports of more sophisticated commodities and services are small; exports of communication and computer and information services are notable exemptions. Imports consist mostly of energy products and consumer goods. The share of capital goods in imports is less than one might wish to see in a developing country. Geographically, the trade of the Republic of Moldova is split into two roughly equal parts: EU and CIS; other partners' shares in exports and imports are much smaller. The share of products requiring higher labour skills and education is not large, but growing.

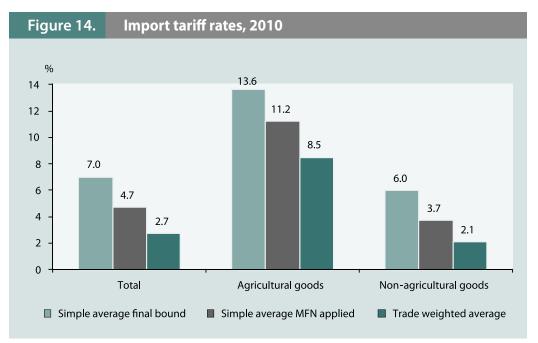
3.2. Trade regime

Key components of the trade regime considered in this section include membership of the country in trade organizations, blocks and free trade areas, its import tariff structure, other taxes on imports, utilization of non-tariff measures and different components of technical barriers to trade and technical regulation. Trade regime on foreign markets for goods from the Republic of Moldova is also discussed briefly.

The Republic of Moldova joined the World Trade Organization in 2001. On accession, the country accepted a fairly liberal trade regime. According to the World Bank's MFN Tariff Trade Restrictiveness Index (TTRI) the Republic of Moldova ranks 11 out of 125 countries; this means that in general the import tariff is one of the lowest in the world. According to another international ranking, the Republic of Moldova stands the first out of 148 countries on the GATS commitment index. Thus, the country is very open for imports of both foreign goods and services.

Final bound import tariff negotiated on the WTO accession has an average rate of 7.0% with 13.6% for agricultural goods and 6.0% for non-agricultural goods (Figure 14). Actually applied MFN tariff is, in average, 2.3% lower than the bound rate. If one accounts for the commodity structure of imports, then trade weighted tariff is just 2.7% (8.5% for agricultural goods and 2.1% for non-agricultural goods).

Zero tariff rates constitute 18.4% of all tariff lines for agricultural goods and 72.4% for non-agricultural goods (Table 11). Of all MFN applied tariff rates, 90% of lines for agricultural goods and 99.9% of lines for non-agricultural goods are not higher than 15%. All these details confirm that the import tariff is not high in the Republic of Moldova.



Source: WTO

Table 11. Frequency distribution of the import tariff rates											
	Year t=	Import tariff range									
		t=0	0 <t≤5< td=""><td>5<t≤10< td=""><td>10<t≤15< td=""><td>15<t≤25< td=""><td>25<t≤50< td=""><td>50<t≤100< td=""><td>>100</td></t≤100<></td></t≤50<></td></t≤25<></td></t≤15<></td></t≤10<></td></t≤5<>	5 <t≤10< td=""><td>10<t≤15< td=""><td>15<t≤25< td=""><td>25<t≤50< td=""><td>50<t≤100< td=""><td>>100</td></t≤100<></td></t≤50<></td></t≤25<></td></t≤15<></td></t≤10<>	10 <t≤15< td=""><td>15<t≤25< td=""><td>25<t≤50< td=""><td>50<t≤100< td=""><td>>100</td></t≤100<></td></t≤50<></td></t≤25<></td></t≤15<>	15 <t≤25< td=""><td>25<t≤50< td=""><td>50<t≤100< td=""><td>>100</td></t≤100<></td></t≤50<></td></t≤25<>	25 <t≤50< td=""><td>50<t≤100< td=""><td>>100</td></t≤100<></td></t≤50<>	50 <t≤100< td=""><td>>100</td></t≤100<>	>100		
Agricultural goods											
Final bound rates		3.0	8.6	33.7	36.6	15.7	1.3	0.4	0.4		
MFN applied rates	2008	18.4	14.7	20.9	36.0	5.7	3.1	0.9	0.3		
Imports	2007	26.2	9.1	29.3	33.1	2.4	0.0	0.0	0.0		
Non-agricultural goods											
Final bound rates		28.0	13.6	47.2	11.1	0.1	0.0	0.0	0.0		
MFN applied rates	2008	51.8	17.8	21.3	8.6	0.1	0.0	0.0	0.0		
Imports	2007	72.4	9.2	15.2	3.1	0.0	0.0	0.0	0.0		

Source: NBM

Apart from import duties, other trade-related taxes include VAT with universal rate of 20%¹³, excises for selected categories of goods (spirits, wines, beer, tobacco, oil products, cars, electrical equipment, perfumes, caviar, jewelry) and customs procedures fees in the amount of 0.4% of customs value of goods for imports and 0.1% of customs value of goods for exports (but not more than 500 Euros). VAT and excises are applied non-discriminatory to imported and domestically produced goods. The

13 8% VAT rate is set for medicines and parapharmaceutical goods and beet sugar, 5% rate for natural and liquefied gas. Goods for children, cosmetics, prosthetic-orthopedic goods, vehicles and other goods for people with disabilities, books, electricity, tourism services, capital goods intended for inclusion into enterprises statutory capital, goods and services financed by foreign aid or goods for free trade zones in the country [CIS Executive Committee, 2010].

only tax, which discriminates against imports, is environmental fee on imports of products capable to cause environmental pollution. The Government has recently approved an amendment to the legislation fixing this problem and submitted it to the Parliament.

Rules of origin are determined by the Custom Tariff Law; with regards to the commodities originating from CIS countries, rules approved by the Council of the Government Heads of CIS in 2000 apply. Origin certificates for exports under preferential trade agreements are issued by the Custom Service; origin certificates for exports under non-preferential regime are issued by the Chamber of Commerce.

Non-tariff and trade remedy measures are not frequently used in the Republic of Moldova. The only safeguard measure registered in the *World Trade Indicators* database of the World Bank is 36-38% additional duty on imports of cane or beet sugar and chemically pure sucrose in solid form, which has been introduced in 2008. There is licensing system for imports of some commodities (spirits and alcohol, beer, tobacco, phytosanitary soil-fertility-enhancing means, seeds, perfumes and cosmetics, arms, electricity, gasoline and diesel fuel, liquefied gas) and for exports ferrous and non-ferrous metal scrap and armaments [CIS Executive Committee, 2010]. Very recently the Government of the Republic of Moldova repealed its previous decision to establish some permission system for imports of meat products, which contradicted the WTO commitments of the country. The Government is also in the process of simplification and reduction of the number of products subject to compulsory conformity certification.

The country has full set of legislation and institutions related to phytosanitary and veterinary controls, technical regulation, standards, conformity assessment and market surveillance; however, these legislation, institutions and practices are not coherent with that used in the EU and are going to become key items in the agenda of future negotiations with the EC (see below). The situation with phytosanitary controls and standards is especially relevant for agriculture and agro-processing; it is discussed in more detail in section 4.1.

External environment for Moldovan exports is also comparatively favourable. While the Overall Trade Restrictiveness Index¹⁴ for the access of goods from the Republic of Moldova to foreign markets is pretty high at 9.9% (27.3% for agricultural goods and 6.4% for non-agricultural goods), its TTRI on foreign markets (MA-TTRI) weighted by actual exports is just 1.2% – well below this index's values for similar countries. The ranking of the Republic of Moldova on this index is 27 out of 125 countries. Since 2008, the EU granted Additional Autonomous Trade Preferences regime to the Republic of Moldova. With the exception of some agricultural products¹⁵, all Moldovan products now have quantitatively unlimited and duty-free access to the EU market. However, also in 2008, the EU enforced anti-dumping duties on Moldovan steel ropes and cables¹⁶ [European Commission, 2009].

14 This index measures the uniform equivalent tariff and non-tariff measures of trading partners facing the exporter country that would maintain the imports of the trading partners constant, including preferential tariffs [World Bank, 2010].

15 According to the UN COMTRADE database, in 2008 among all exports of Moldova to the EU only exports of wine, sugar and barley exceeded the tariff quotas (i.e., amounts of goods allowed for duty free imports) established by the EU.

> 16 See the associated drop in exports of this commodity (code 7213) in 2009 in Table 7.

The Republic of Moldova is a member of two free trade areas: CIS¹⁷ and CEFTA¹⁸. Free trade regime with CIS countries is very important as it allows maintaining traditional trade links and affects almost half of the foreign trade of the country. Nevertheless, there are some sensitive exemptions from the free trade regime with the CIS countries (the list below does not pretend to be exhaustive):

- Russia exempts Moldovan sugar, spirit, vodka, cigarettes and cigars;
- Ukraine exempts Moldovan sugar, spirit, livestock hides, and ferrous and non-ferrous metal scrap;
- Belarus exempts Moldovan sugar;
- Kazakhstan has a permit system for re-exports of a number of commodities;
- The Republic of Moldova exempts Ukrainian sugar, spirit and sugar beet seeds and Belorussian sugar (tariff quota).

Part of these exemptions is motivated by domestic market protection considerations, and partially the motivation is to prevent re-export activities. However, in practice, without a formal exemption from free trade regime exports from the Republic of Moldova have been strongly and adversely affected by ad hoc technical barriers (the case of fruit and wine exports to Russia, 2005-2006 and 2010) and excises (wine exports to Ukraine, 2009).

The CEFTA agreement also contains a number of exemptions from free trade regime for agricultural commodities. These exemptions are less sensitive as trade of the Republic of Moldova with CEFTA countries is not large (see section 3.1). Moldovan exports also enjoy unilateral trade preferential regime offered by Switzerland, Japan, the United States, Turkey, and Norway.

The regime of trade of the Republic of Moldova with its key trade partners may start changing soon. There are at least four sources of potential changes. One is related to the creation of the Custom Union between Belarus, Kazakhstan and Russian Federation; each of these countries belongs to list of the most important partners of the Republic of Moldova. The second possible source of change is forthcoming WTO accession of the Russian Federation, which recently achieved a substantial progress in its accession negotiations. Thirdly, in 2011 the Republic of Moldova is going to start negotiations on free trade agreement with Turkey, which is an important partner for the country. Finally, the Republic of Moldova is now starting negotiations with the European Union on the Deep and Comprehensive Free Trade Agreement (DCFTA).

The Republic of Moldova has free-trade agreements with all three member countries of the Custom Union (CU), so adoption of the single import tariff of this Union per se should not affect their trade with the Republic of Moldova. However, there might be changes in the custom administration practices in the CU member countries, in their treatment of re-exports, in technical regulations etc., which are associated with a risk of making the actual trade regime less favorable for some Moldovan exporters.

¹⁷ Although this free trade area has never been fully formalized, in practice Moldova maintains free trade regime with all CIS members through bilateral agreements.

¹⁸ Includes all countries on Western Balkans apart from Slovenia, which is the EU member already.

On the other side, a new free trade area treaty is being developed under umbrella of the Commonwealth of Independent States, which is to include Belarus, Kazakhstan, the Republic of Moldova, Russia, Ukraine and three other CIS members. According to the statements made during the Minsk meeting of the ministers of economy of CIS countries in September 2010, the new FTA agreement could be adopted already in 2011. This agreement is to be based on the WTO principles. This reliance on the WTO rules in the intra-CIS relationships seems to reflect the increased probability of Russia to join the WTO in the nearest future. This is to benefit the Republic of Moldova, which has already adjusted its trade regime to the WTO requirements long time ago. As a result of this change, the regime of trade of the Republic of Moldova with CIS partners is going to become more rules-based and predictable.

The existing custom union between the European Union and Turkey implies that Turkey will align itself with all preferential agreements existing between the EU and third parties. This means in practice that the Republic of Moldova's DCFTA with the EU is to be accompanied by an FTA with Turkey. According to media reports, negotiations on this FTA are to start in 2011. Turkey is already an important trade partner of the Republic of Moldova aggressively exporting its commodities on the Moldovan market and already having large positive balance in trade with the Republic of Moldova (199 USD million in 2008 and 139 USD million in 2009). In many sectors (garments, footwear, fruits, etc.) the imports from Turkey compete with domestic production, so transition to a free trade regime may be painful for some sectors of the economy. On the other side, there is a chance that the FTA conditions may be formulated in a way reducing risks for the Moldovan economy by preserving existing levels of protection on the most sensitive domestic commodity markets [Logos Press, 2010]. If this would be the case, short-term losses for the companies in the Republic of Moldova facing increased competition are not going to be large, but then this FTA would contribute more to trade diversion (Turkish imports would be crowding out imports from those countries, which do not have a preferential trade agreement with the Republic of Moldova) rather than to trade creation. Nevertheless, this FTA would remove at least some impediments on the way of current and potential exports from the Republic of Moldova to the large and fast growing Turkish market. These considerations together with understanding of this FTA as a prerequisite for the DCFTA with the EU seem to provide sufficient rationale for concluding this agreement.

As it was noted above, the current regime of trade of the Republic of Moldova with the EU is already pretty liberal. Therefore, having simple (or shallow) FTA with the EU implying removal of remaining tariffs and quotas is not going to provide a significant impact on the economy of the Republic of Moldova, while DCFTA offers much more attractive prospects and larger welfare gains. Deep integration under DCFTA involves policies and institutions that facilitate trade by reducing or eliminating regulatory and behind-the-border impediments to trade. These can include issues such as customs procedures, regulation of domestic services production that

discriminate against foreigners, product standards that differ from international norms or where testing and certification of foreign goods is complex and perhaps exclusionary, regulation of inward investments, competition policy, intellectual policy protection and the rules surrounding access to government procurement. Deep integration permits both more niche market specialization and the creation of stable value chains. The possible range of further gains associated with deeper integration include: technology transfer and diffusion both through trade and FDI, pro-competitive gains from increasing import competition in an environment of imperfect competition, which may also allow greater exploitation of economies of scale in production and the greater use of intermediate inputs; the increased geographical dispersion of production through trade that supports the exploitation of different factor proportions for different parts of the production process and/or (ii) local economies of scale through finer specialization and division of labor in production; externalities arising from institutional changes that lead to a wide increases in productivity [CARIS, 2007].

As follows from the above, the subject of the DCFTA negotiations would be not only (and, perhaps, not so much) purely trade policy measures – the EU's remaining tariff quotas and other limitations for duty-free exports from the Republic of Moldova to the EU and the Republic of Moldova's import tariffs for the commodities originating from the EU, but also measures of regulatory and institutional harmonization bringing the Republic of Moldova's institutions closer to the EU standards. The importance of this harmonization in the long-term is difficult to overestimate as it is going to support modernization of the legal and institutional framework in the country. This is to be more conducive for expansion and commodity diversification of exports to the EU, but also to other major trade partner countries (Ukraine, but also Russia and some other CIS members), which either aspire full harmonization with the EU regulatory systems, or move in this direction. However, most probably, this harmonization is going to be costly in some aspects. In the short-term, some Moldovan producers could suffer from increased competition on domestic market or from increased certification, standardization and similar costs in case strict regulations should be implemented as a result of the DCFTA. It seems that in the course of negotiations (i) the costs of harmonization are to be explicitly accounted for and compared with expected benefits on case by case basis, and (ii) an effective consultation process with the private sector needs to be established in order to assess these benefits and costs properly. Some considerations on human development implications of the DCFTA and other trade arrangements are discussed in section 3.4.

According to the Government's Action Plan for future negotiations on the DCFTA, key issues in the negotiations in 2011-2013 include:

identification of those sectors of the economy to be the most affected by the free trade regime (e.g., wine, light industry, construction materials, ICT) and implementation of harmonization of legislation related to these sectors with the EU's acquis communautaire;

- evaluation of the situation with implementation of Autonomous Trade Preferences and inform private sector on key existing problems in market access to the EU market;
- adoption and implementation of reform plan in the area of Technical Barriers to Trade (TBT) including the issues of legislative and institutional harmonization in standardization, accreditation and conformity assessment, certification, market surveillance, and metrology;
- implementation of Sanitary and Phytosanitary (SPS) measures reform including institutional enhancement of the food safety system, better equipment and international accreditation of the food testing laboratories, introduction of information systems for the control of animal diseases;
- reforms in trade facilitation and custom administration including ensuring full compliance of custom fees with the WTO and EU provisions, ensuring homogenous implementation of customs legislation and application of the rules of origin throughout the territory of the Republic of Moldova (including Transnistria), implementation of customs ethics policy and proper training of customs officers;
- implementation of legal reforms related to financial sector, investment climate and competition protection;
- enforcement of intellectual property rights;
- harmonization of legislation related to public procurement with the EU's acquis;

improvement of the social dialogue institutional framework by creating committees for consultation and collective negotiations in all branches of national economy and in all country's districts.

Apparently, this ambitious reform program would require a lot of work and commitment from the Government and society. Preparation of the Agreement would also take a substantial amount of time, so signing the DCFTA could be expected in the medium-term perspective, and its fruits would become visible in the long-term.

Summarizing one could conclude that the current trade regime in the Republic of Moldova is liberal; the external environment for Moldovan exports is formally liberal too. In practice, trade is vulnerable to unilateral actions of the trade partners of the Republic of Moldova. Therefore, it seems that key trade policy issue is establishing more predictability in trade relationships with main trade partners. This could be achieved through the ongoing changes in the trade agreements with CIS countries.

3.3. Business climate and investments

19 Apart from vulnerability of the wine exports to the CIS countries.

Trade performance depends not only on the trade regime, but also on the business and investment climate in the country. While trade regime in the Republic of Moldova is quite favourable for the foreign trade participants and, in general, external environment for Moldovan exports is also good¹⁹, the business environment seems

to be a factor lowering the competitiveness of the goods produced in the Republic of Moldova.

These days several international indices have been developed to understand and monitor business climate issues in different countries. These indices include, but are not limited to, the World Bank's *Doing Business* ranking and *Logistics Perception Index*, the EBRD's *Transition Indicators*, the World Economic Forum's *Global Competitiveness Index* and *Enabling Trade Index* (Table 12).

Table 12. Position of the country in some international index rankings					
International index	Rank of the Republic of Moldova	Total number of countries in the index ranking	Percentile ²⁰		
Doing business 2010					
Overall	94	183	51		
Trading across borders	140		77		
Logistics perception index 2010					
Overall	104	155	67		
Customs	124		80		
Infrastructure	123		79		
International shipments	78		50		
Logistics competence	132		85		
Tracking and tracing	61		39		
Timeliness	97		63		
Global Competitiveness Index 2010	0-2011				
Overall	94	139	68		
Institutions	102		73		
Infrastructure	97		70		
Macroeconomic environment	90		65		
Health and primary education	84		60		
Higher education and training	78		56		
Goods market efficiency	104		75		
Labor market efficiency	68		49		
Financial market development	103		74		
Technological readiness	89		64		
Market size	121		87		
Business sophistication	113		81		
Innovation	129		93		
Enabling Trade Index 2009					
Overall	52	121	43		
Market access	6		5		
Border administration	72		60		
Transport and communication infrastructure	58		48		
Business environment	73		60		

Source: World Bank, World Economic Forum

²⁰ The lower the percentile the better standing of the country in the selected index's international ranking.

A picture of relative standing of the Republic of Moldova with regards to other countries could be also drawn from the results of the World Bank's "Doing Business" surveys (2008 and 2010/11), where the Republic of Moldova worsen its position in the last two years and is lacking behind its neighbors. In 2008 the Republic of Moldova was ranked 135th on the indicator "Trading Across Borders," 10 points lower than the previous year (2007) and in 2010 it was ranked 141 going even lower on that indicator.

Table 13. The Republi	The Republic of Moldova's indicators in trading across borders							
Indicator		The Republic of Moldova		Region		OECD		
		2008	2010	2008	2010	2008	2010	
Documents for export (numb	er)	6	6	7.1	6.4	4.5	4.4	
Time for export (days)		32	32	29.7	26.7	10.7	10.9	
Cost to export (USD per conta	iner)	1,775	1,765	1,649	1,652	1,069	1,059	

Source: WB Doing Business 2008 and 2010

In general, the standing of the Republic of Moldova on these indices is much worse than on trade policy and market access indicators which were discussed in the previous section. On almost all behind-the-borders indices the country belongs to the lower half of the international rankings. According to these indices²¹, key problematic areas include:

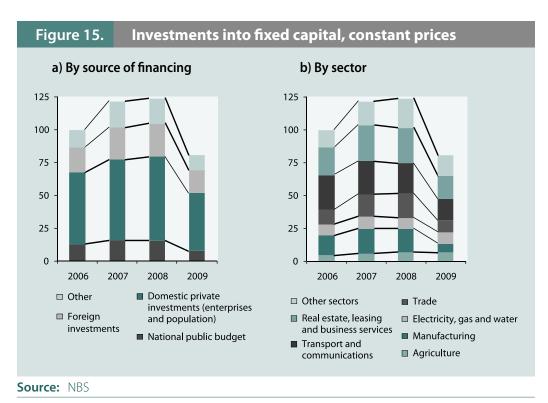
- The small size of Moldova's economy (*Trading across borders* component of the *Doing Business*, some components of the *Logistics Perception Index*, and *Market size* component of the *Global Competitiveness Index*), which does not allow companies to enjoy economies of scale thus inhibiting development of modern logistics business and resulting in high costs of export/import shipments in the Republic of Moldova. The importance of economic scale for trade is confirmed by the data from the Enterprise Surveys conducted by the World Bank in 2009. According to these data, in the Republic of Moldova large companies (100+ employees) are involved into export activities in 53.2% cases, while small companies (<20 employees) and medium-sized companies (20-99 employees) are involved in exports only in 8.0% and 12.9% cases correspondingly. A source of effectiveness and efficiency for many of the smaller companies is their informality, but this informality is simultaneously a barrier for their participation in the foreign trade.
- Underdevelopment of transport and other infrastructure (e.g., *Infrastructure* and *Timeliness* components of the *Logistics Perception Index* or *Infrastructure* component of the *Global Competitiveness Index*), which also increases costs and introduces volatility in trade operations in the country.
- Inappropriate functioning of custom and border controls (*Customs* component of the *Logistics Perception Index* or *Border administration* component of the *Enabling Trade Index*), which adversely affects both trade costs and reliability of cross-border movement of goods.

²¹ The indices are based on some mix of statistical data and opinion surveys of entrepreneurs, experts and other stakeholders.

Other issues in business and investment climate include insufficient competence in some trade-related sectors (e.g., logistics) and innovation potential, financial market's under-development and high costs of/limited access to trade finance, and low efficiency of commodity markets.

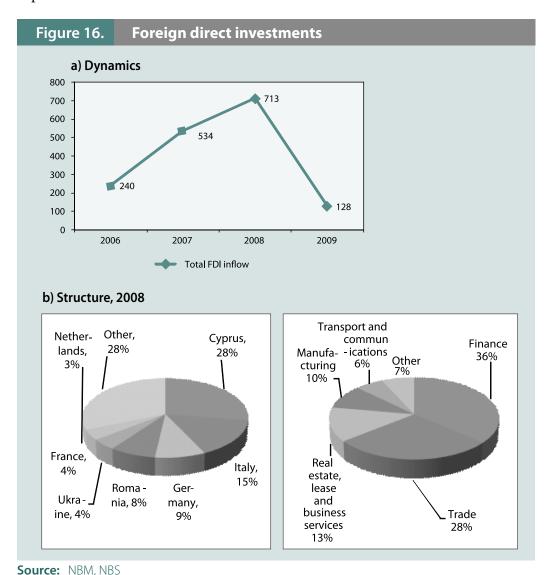
The improvement of the business climate requires deep and consistent regulatory reforms and general upgrading in the governance quality (these issues are outside the scope of this paper), but also considerable investments into public infrastructure and attraction of FDI, especially foreign investments involving inflow of know-how and international best business practices. On the other side, trade openness and expansion of export opportunities create a favourable environment for the desired increase in investments.

Investment performance of the country in recent years was mixed and correlated with the trade developments (Figure 15a). Investments significantly increased in 2006-2007 and continued to grow in 2008; in 2009, however, investments dropped by more than one-third. The main drivers of the investment growth in 2006-2008 and decline in 2009 were domestic private as well as foreign investments; government budget investments grew much slower, but declined stronger than total investments. The latter fact indicates that infrastructure investments do not seem to be a high priority of the government. Investments went mostly into the service sectors (trade, communications, real estate etc.); manufacturing was somewhat benefiting from investments in the period of economic growth, but lost more than half of investments during the crisis; agriculture received relatively minor share of investments – considerably less than this sector's share in GDP (Figure 15b). The level of



investments into the energy sector stayed almost constant in real terms during this period of time. This sector structure of investments suggests that the recent investments only partially supported export potential of the country as their large part went to the sectors (e.g., trade, real estate, social services), which are only minor exporters of services or providers of infrastructure for the export-oriented sectors (manufacturing, agriculture, transportation).

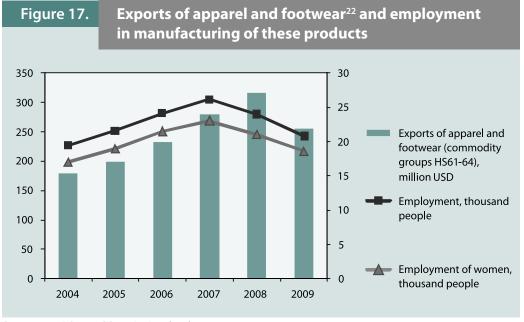
FDI performance mostly replicates the performance of investments in general (Figure 16). FDI grew very well in 2006-2008 and reduced almost six times in 2009. The main sources of FDI were Cyprus (may serve as a channel for investments of Russian origin), Ukraine, Italy, Germany, Romania, and some other EU countries. The geographical structure of investments pretty much coincides with the geographical structure of the foreign trade of the Republic of Moldova. This is an additional argument for existence of close relationship between trade and investment flows: more FDI cause/accompany more exports and imports. More than three-quarters of FDI went to the financial sector, trade and real estate and only minor part went to the export-oriented sectors.



It follows from this analysis that business and investment climate is a key determinant of further development of trade in the Republic of Moldova. The costs of doing business seem to be even more serious issue for exports from the Republic of Moldova than trade policy in the narrow sense (tariffs and the like) and price competitiveness/real exchange rate issues. Improvements in performance of government agencies serving trade flows (customs, border controls, certification etc.), regulatory reforms, development of transport, financial and other infrastructure are needed for further trade development in the country.

3.4. Trade-human development linkages

The above analysis suggests that the linkages between trade and human development in the Republic of Moldova are explicit and strong. Exports as a source of employment and income generation and imports as a resource for the government spending (see section 2.1) are influencing human development directly. The relationship between exports and employment could be demonstrated for the manufacturing of apparel and footwear (Figure 17). The positive correlation between volumes of exports and employment (mostly employment of women) is obvious for the period 2004-2009 with the only exception of 2008, when the global crisis began.



Source: NBS, UN COMTRADE database

The impact of trade on poverty in the Republic of Moldova had been analyzed in [World Bank, 2004]. It was found that reduction of exporting costs due to improvements in business climate (custom procedures, regulatory requirements etc.) may result in 5% poverty reduction. Further on, improvement of access to foreign markets due to reduction of formal external trade barriers, infrastructure development, and better compliance with quality standards could produce additional 4.5% reduction in poverty rate. Finally, improvement in import procedures is going to bring

²² Commodity groups 61-64 of HS 1996 classification.

domestic prices down and contribute to poverty reduction of 0.7%. So, according to these calculations, alleviation of constrains for exports and imports could cause more than 10% poverty reduction. And this trade-related poverty reduction potential exists despite of the fact that, according to this study, poor gain from trade less than non-poor. These poverty reduction estimates, of course, are to be taken with caution (poverty situation, trade regime and the barriers for trade went through a significant change after 2004); still, they illustrate a considerable potential for human development associated with increases in foreign trade.

Trade is capable also producing effects, which are not directly related to incomes. Figure 17 shows that export-related employment in apparel/footwear production was mostly employment for women, employment of men in the sector was almost constant. Trade could also reduce or increase regional inequalities in employment and income distribution, reshape the demand for and supply of education services and environment-friendly products.

The expected changes in the trade regime (new CIS FTA agreement, FTA with Turkey and DCFTA with the EU, see section 3.2) could influence human development in the country in a number of ways. Key immediate anticipated economic consequences of these trade arrangements include: (i) increased competition on the Republic of Moldova's domestic market; (ii) significant upgrade in the regulatory system in the economy and its approximation to the European model; (iii) more formal and rules-based regime of trade with the CIS countries, in particular, reexport activities in the eastern direction may become more difficult and TBT and SPS issues for exports to Russia, Ukraine and other CIS countries could become as important as for exports to the EU. In case the legal and institutional approximation to the EU would progress successfully, this is going to result in larger FDI inflow, increase in and diversification of Moldovan exports to the EU and to other countries. From the human development perspective, these changes imply both benefits and costs in terms of employment, government budget revenues, consumer prices, and environment for SME development.

The possible impact of trade liberalization and reforms on the labour market in the country is two-fold. On one side, increased competition on the domestic market may result in some of the Moldovan enterprises to lose their domestic market share partially/fully with associated negative consequences for employment in these enterprises. Although the import tariffs to be abandoned under the FTAs are not high, the existing evidence suggests that imports to the Republic of Moldova are sensitive to price signals (see section 2.1), so the increase in competitiveness of imported commodities may be sufficient to affect these market shares' division between domestic production and imports. However, it seems that FTA with Turkey would be structured in the way least harmful for existing producers in the Republic of Moldova, so this type of negative impact on the employment would be neutralized. The imports from the EU compete with domestic production to a much lesser extent as

they cover either goods not produced in the Republic of Moldova, or are oriented on upper segments of the market, where demand is more sensitive to brand considerations than to price incentives. Possible FDI inflow (hopefully accompanied by know-how and technology transfer) and expansion and niche identification of exports from the Republic of Moldova to the EU and Turkey would, of course, positively affect employment in the country and, importantly, would disproportionally increase the demand for skilled labour and, hence, provide a badly needed push to the professional education system. On balance, the expected impact on employment is going to be positive. It is worth noting, however, that existence of contradictory trends indicates on the necessity to implement a careful quantitative study of these effects²³.

The trade liberalization may influence government budget revenues and, hence, the prospects for financing of social services. FTA with Turkey and DCFTA with the EU are going to lower custom duty collections. Custom duties contribute to the government budget quite substantially; in 2006-2009 these duties provided 4-5% of total government revenue. Imports from the EU and Turkey constitute 55-60% of taxable imports, i.e., those imports, which come from countries currently without duty-free regime with the Republic of Moldova. This means that up to 2.5% of government revenues may be lost. These losses to some extent should be compensated by increased tax payments of enterprises benefiting from improved export opportunities and by increased collections of VAT on growing imports. Apparently, a systematic quantitative assessment of the fiscal impact of the trade regime changes is needed.

The impact on consumer prices and, through them, on purchasing power of poorer segments of the population is also going to be ambiguous. The increased competition on domestic market would drive domestic prices down, while improved prospects for exports may allow converting some non-tradable goods (e.g., vegetables and fruits, which are not sufficiently standardized now to go for exports) into tradable ones with possible effect of domestic prices for these goods to catch up with export market prices. Again, these changes are going to be spread in time, so no major general impact on prices in either direction is expected. At the same time, prices for cheaper products consumed by poor may grow up, because of smaller supply.

All expected changes in trade regime with key partners on the West, East and South seem to contribute to establishing more demanding external legal and institutional environment for exports/re-exports from and imports to the Republic of Moldova: stricter enforcement of rules of origin and technical regulations, SPS measures etc. So, one result of these changes could be less comfortable environment for the enterprises operating in informal economy. Increased competition on domestic market due to lower entry barriers would put more emphasis on economies of scale; only sufficiently large enterprises would be able to compete successfully with imports and incoming foreign companies. Two these factors - formalization and increased competition—both are going to complicate economic prospects of SMEs, which are

impact of trade regime change on employment by sector of the economy and by labor force category requires general and partial equilibrium models; this is to be a subject of a separate study.

often less formal than large ones. Most probably, different SMEs would perform differently in this environment: some will manage to find appropriate niches both on domestic and external markets and sometimes to grow to a different scale of operations, others are going to quit. Expected outcomes would include a shift towards more formal and skilled employment, systematic tax payments, demand for better education and proper law enforcement (courts etc.). These structural changes in the economy, which seem to be very much desirable and needed for sustainable development of the economy, would take a sufficiently long period of time, so all willing and capable to adjust (e.g., establish more formal labor contracts with employees, stricter implement technical regulations, invest in marketing) could come prepared to the moment of full implementation of the new trade regime. These changes would have impact on formation of middle class in the country; it is going to become better educated and more entrepreneurial, but, perhaps, quantitatively growing less quickly than before.

It is worth noting that despite all importance of the FTA arrangements with the EU, CIS, Turkey the expected impact is going to be much smaller than in the case of foreign trade liberalization undertaken in the early 1990s; the changes are going to be less radical, better understood and spread in time.

The above discussion of further trade liberalization's impact indicates that the general effect of the liberalization on human development of the country is going to be positive with two important reservations:

- the process would not be costless, some population groups/segments of economy may lose rather than gain from it; and
- all positive implications of the trade liberalization are based on the assumption that the economy would be able to fully utilize the opening potential opportunities on foreign markets; this requires a substantial improvement in governance and sound macroeconomic policy.

To fully utilize the potential of trade in developing the country's human potential, it is necessary to overcome available barriers for trade expansion. As follows from the analysis of the trade regime and business climate, these barriers seem to be mostly on the supply side. Then, potential interventions in the framework of the Aid for Trade programme in the Republic of Moldova to the extent possible should:

- **contribute to employment and income generation,**
- target relatively disadvantaged social groups,
- produce public goods with maximum spillover effect, and
- address imperfections on the factor or commodity markets, which seem to constrain the trade development the most.

To identify these AfT interventions, it is necessary to determine the sectors of economy, which could benefit from donor support and produce positive results in terms of human development, and then to decide on concrete substance of these interventions. Analyzing the structure of the economy, one could think of two sectors, which promise a high human development return:

- Agriculture and processing industry, the sector with still the largest employment among all other sectors; it provides incomes for the poorest segment of society rural population; this is the sector actively involved into exports, has well-established positions on foreign markets, but in acute need of adding value to commodities to be exported; the sector, which is capable of reducing regional inequality and positively affecting the environmental situation in the country;
- Information and communication technologies, the sector with fast growing production and exports, providing jobs and creating demand for high-skill workers and modern forms of organization of production with potential spillovers to the education system and other sectors of the economy.

Identification of the concrete forms of interventions requires detailed analysis of the situation in these sectors, which is provided in the next chapter.

TRADE AND HUMAN DEVELOPMENT NEXUS: ANALYSIS OF SELECTED SECTORS

4.1. Agriculture and agro-processing industry

4.1.1. Contribution to GDP, employment and foreign trade

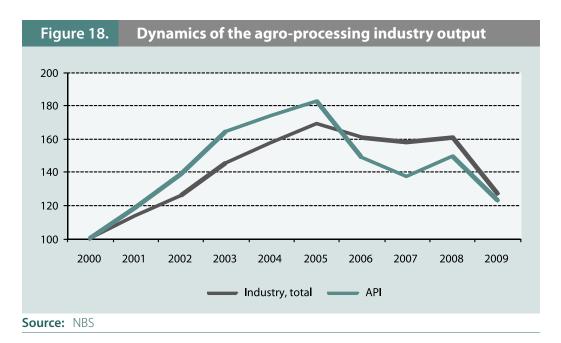
Agriculture is one of the most important sectors of the Moldovan economy. During the last three years it amounted to about 9% of country's GDP; during the same period, its share in total employment fell from 33% in 2007 to 28% in 2009 (see Figures 2b, 4). Much higher share of the agricultural sector in employment than in GDP is a clear indicator of low labour productivity in agriculture. The gradual reduction in the sector's employment could be related to rural-urban and external labor migration. Still, the large role of agriculture as employer requires paying due attention to the sector both from the point of view of economic and human development.

Agro-processing industry (API) produces 3-4% to GDP depending on a year and employs around 6% of the labour force as of 2009. Agro-processing accounts for half of the Gross Industrial Output, and this share has remained pretty stable over the last decade. Having risen since 2000 with impressive annual growth rates of 15-18% (Figure 18), the growth of the agro-processing industry has slowed down to 5% per annum in 2004, and then took a steep downward path in 2006 as a result of the wine sector crisis, which is the dominant sector with a 40% share in gross agro-processing output (GAPO). API growth rates continued to decrease in 2007 due to that year's agricultural difficulties; at the same time the total industrial growth rate declined insignificantly in 2007. It should be noted that API constitutes about 40% of total industrial production. As 2008 was a productive year for agriculture, API growth rate was positive. In 2009 both the industry as a whole and the API suffered from general economic and financial crisis.

A few hundred firms operate in agro-processing, and the most important products include wine, processed fruits and vegetables, meat and dairy products. Agro-processors generally source their raw material from domestic supplies; one exception is the meat industry, which imports most of the meat and offal raw material (since domestic stock is more expensive than imported frozen meat).

Growth in agro-processing has been driven mainly by the oils and fats industry, wine industry and dairy industry. The worst performing industry is tobacco. The wine

⁶ In this paper all former republics of the USSR apart from Baltic ones are included into this group despite their different current membership status in this organization. This is done because Moldova has the same trade regime with all of them.



industry growth has already proven its vulnerability to different economic shocks. The impressive growth of the oils industry (over 30% p.a. in some periods of time) should also be regarded with concern, because it is driven by the export growth of one single product (sunflower oil) produced by one single local enterprise that has a market share of over 90% of domestic oil production. The least concentrated industries that exhibit a somewhat better export market diversification are the dairy and

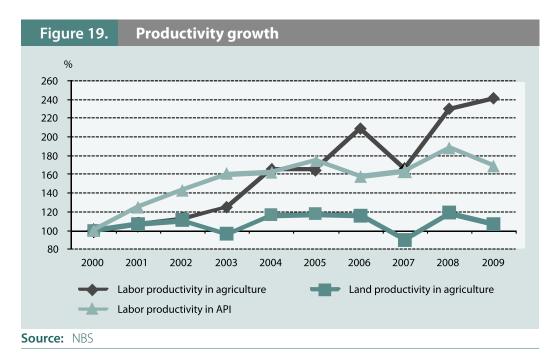
fruit & vegetable industries.

Agro-food products dominate in the country's exports; their share far exceeds half of total exports of goods (Figure 11a). However, despite this major contribution to the country's exports, the potential of export expansion of the agricultural and food processing industry is still not fully realized. Agro-food exports recorded a slight increase in 2007, as a result of the partial resumption of exports of alcoholic beverages in Russia and the significant growth of exports of fruits and vegetables. Agro-food exports grew slower than total exports in 2007 and 2008, and their share in total exports decreased. Imports of agricultural and food products are also high (Figure 11c), and this indicates that the sector underperforms not only on export markets, but also on the domestic market.

The most export-oriented products are wine and spirits, as well as fruit and vegetables, both fresh and processed: only these two categories account for nearly 40% of Moldovan exports. So far, the CIS countries and, first of all, Russia are the Republic of Moldova's most important partners in agro-food trade, accounting for about 60% of its total agro-food exports. The food products exported to the EU include wine, sugar, oil seeds, fruits, vegetables, nuts, and juice concentrate. It has become clear over the last decade that trade with traditional CIS partners does not guarantee stable export markets. The sudden bans by Russia on imports of Moldovan wines and spirits, vegetable, horticultural and livestock products in 2005, 2006 and

2010 (see section 3.2) have emphasized the need for urgent export diversification. Increasing exports to the EU would help achieve this diversification and provide access to higher-value markets. Therefore, meeting the requirements of the European food supply chains is the challenge that the Republic of Moldova's agro-food sector is facing today.

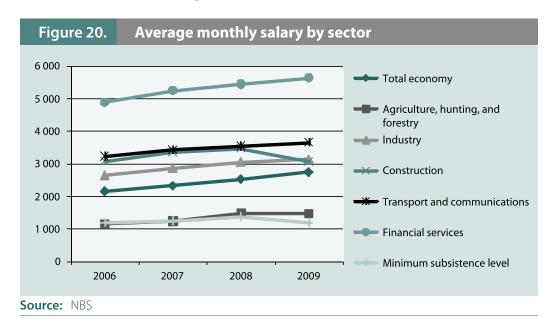
The growth in labour productivity in agriculture is due to excessive labour outflow and could not be attributed to any other sources of efficiency gains; this is confirmed by the non-growing land productivity that has closely followed the gross agricultural output growth pattern (Figure 19). The labour productivity growth in agroprocessing, on the other hand, has seen a rapid increase over the last years, while the 2006 downturn was due to the severe wine sector crisis caused by the sudden closure of the Russian market.



Wages in agriculture are just above the minimum subsistence level (Figure 20), and that has been achieved only during the last couple of years. This low level of incomes resulted in poverty in the rural areas and subsequent labour migration from rural to urban areas or abroad. In spite of its large stock of labour force and significant contribution to the economy, the population occupied in this sector exhibits the highest poverty rates (see section 2.2). One reason for the low farm incomes is evolution of relative prices. Moldovan farmers' real incomes fell because the prices they received for their products were flat, while the prices paid for inputs were growing. The prices received by Moldovan farmers had been far below international parity prices.

24 Sector Analysis, MCA, and NGO Agrex. Low farm-gate prices might be explained by a number of factors, among which the most important seem to be the following:

- Undeveloped wholesale market for agricultural products;
- Higher bargaining power of few wholesale buyers;
- Quality issues (standards for product as well as packaging, etc.);
- Lack of distribution channels:
- Poor infrastructure and logistics;
- Limited access to foreign markets.



At the same time, salaries in the processing industry during in the 2000s have exceeded the average salary in the economy and currently are more than twice those in agriculture with an increasing disparity rate.

4.1.2. Sector structure and competition

The current production structure of the Moldovan agricultural sector reflects its semi-subsistence nature. Climate and high soil fertility makes the Republic of Moldova well suited to grow most fruits and vegetables, potatoes, and cereals characteristic to the temperate zone. Crops clearly dominate with a share of 70% in the total agricultural output. Livestock inventory is currently concentrated within the individual sector and has the main purpose of satisfying the on-farm and family needs of rural households, while the surplus produce – meat, milk, dairy products and eggs – is usually marketed. The crop sector, on the other side, is dominated by low value staple crops – mainly cereals and oilseeds – that have expanded in area due to low input requirements, extensive on-farm usage and guaranteed markets.

The production of high value crops, such as fruit, vegetables, tobacco, has contracted due to high production costs and severe lack of financial resources. The deteriorating irrigation infrastructure (particularly important for vegetables) and ageing low-yielding orchards and vineyards are important impediments to high value produce growth in the Republic of Moldova. However, certain developments, supported by the donor community, of the high value agriculture sector took place in the recent years, such as plantation of new vineyards and orchards, rehabilitation of some irrigation systems and purchase of new irrigation equipment. These are still limited investments in order to have an effect at the macro level in the mid-term but sufficient to boost the performance at the sector level.

Production of high-value crops, fruit and vegetables in particular, offers the best potential for increased income and is thus a route out of poverty for the rural poor. Statistical data clearly show that the current output per unit of land (i.e. hectare) is highest for fruit and vegetables, as well as tobacco. A survey of small farms indicated that in 2006 profitability levels per crop were highest for irrigated vegetables, as well as fruits (Table 14). In the same context, an IFAD study²⁵ has concluded that while basic field crops are a recipe for continued poverty, fruits, grapes and vegetables are the most profitable areas of Moldovan agriculture. Although absolute profitability values have changed since time, when these studies were conducted, the relative profitability of different crops to each other could not change much.

Table 14. Profitability by crop, 2006					
Сгор	Moldovan lei/ha				
Cereals	1 727				
Sunflower	1 167				
Sugar beet	3 265				
Tobacco	6 388				
Irrigated vegetables	34 555				
Fruits	8 884				

Source: Survey of small farms, Agrex NGO

The present low efficiency of the agricultural sector results from its weak link to the markets and the low competitiveness level of the output produced. This unfortunate state of affairs is determined by interconnected market failures that all together form a vicious circle that is hard to break. Weak and underdeveloped agricultural markets for inputs and outputs keep the producer prices depressed, while input prices keep increasing much faster. Since most of the tradable agricultural inputs are imported, Moldovan farmers face the world prices for their inputs, but are not able to receive the world prices for their produce.

There are constraints on both the supply and the demand side for this situation. On the supply side, the low and inconsistent quality of agricultural produce is responsible for the poor marketing opportunities presently available to Moldovan farmers.

²⁵ Regional Comparative Advantage Analysis: Albania, Georgia and Moldova,

This, in turn, is linked to demand side failures, i.e. the under-development of vertically coordinated supply chains in the Republic of Moldova (comprising food retail chains, processors, exporters, other downstream players) that in developed economies drive the demand and set standards for the agricultural produce based on latest market requirements. Farmers in the Republic of Moldova also lack institutional arrangements in form of voluntary membership organizations meant to facilitate marketing and other services to better integrate them in vertically coordinated supply chains.

Today, the success of agriculture and agricultural producers of a small open economy, such as the Republic of Moldova, is highly determined by their compliance to the international standards and quality systems. Modernization of the Moldovan system of management of quality, food safety, and animal and plant health is critically needed to maintain access to profitable market segments in CIS countries, as well as to acquire and increase access to new export markets through diversification, especially in the expanding EU.

Replacement of the present system of mandatory standards and overlapping inspections by one based on fewer mandatory regulations, voluntary standards, and streamlined inspections will reduce costs — hence increasing competitiveness — at the same time it will improve food safety and agricultural health.

Modern market infrastructure provides an efficient tool for increased value added in agriculture and is an essential part of developing vertically coordinated supply chains. In the Republic of Moldova there is a critical need for increased storage capacities²⁶, particularly cold storages and controlled atmosphere storages, collection points, field cooling facilities, packing houses dealing with post-harvest treatment, grading, sorting and handling of horticultural produce. While the private sector should be the driver of such investments, the state should highly encourage them through committed policy support and public good provision.

Agro-processing is another essential mechanism for increasing agricultural value added. Agro-processors could serve as the dynamic element that the agricultural sector needs, by transmitting market signals from the ultimate markets to the farm gate. As part of this process, they may offer modern agricultural technologies along with financial incentives, thus enabling farmers to meet their contract requirements.

So far, however, the Moldovan agro-processing industry has not fully succeeded in ensuring this role. Most agro-processing operations, especially small and medium enterprises, face difficult constraints in many areas, including technology, finance, management, marketing, logistics, and regulatory burden. If sufficient numbers of enterprises succeed in the face of these constraints and grow rapidly, this stream could become the dynamic element of the agricultural sector.

⁴³ A Cold Chain Study conducted by USAID/CNFA in November 2004 estimated that about 70% of the fresh fruits and vegetables produced in Moldova are sold during the harvesting season and without the benefit of refrigerated storage. Investments in agro-processing are highly concentrated in the wine sector. Agro-processing annually attracts between 10 and 20% of total investments in the economy and accounts from 60% to 70% of investments going into the industry. Within API, 60% of investments go into production of wine and spirits, processing of fruits and vegetables goes second with just 9% of investments. Since late 1990s, a wave of investments, primarily from Russia, has occurred in the wine and distilled spirits industry. Additional recent investments in the wine industry have come from the United States, Germany, and France. Investments in meat and dairy production have come primarily from Belgium and Netherlands. Fruit and vegetable industry has attracted investments from the United States.

The bottom line is that in order to achieve rural poverty reduction through the trade policy mainstreaming it must be primarily market-driven, and this means aiming for agricultural sector that is competitive, especially in the export markets. The local supply is to satisfy the international demand requirements and Moldovan agrofood products are to be able to compete on international markets; then Moldovan agriculture has high chances of becoming a profitable business, provided the value chain links are strong and based on long-term partnerships. Growing agricultural incomes would enable the development of non-farm activities in rural areas, since the farming population will create a demand for various products and services, and will be able to actually pay for these (this is not the case today). Wider job opportunities in rural areas and higher profitability of farming operations will stimulate the most productive ones to remain in agribusiness, thus enhancing sector efficiency and driving sector growth. In fact, the development of other non-farm sectors on the basis of a profitable and competitive agricultural and agribusiness sectors is the path towards country's sustainable development and growth.

4.1.3. Regulatory problems

An important aspect of the trade in agricultural and agro-processed products is the ways that these products are regulated within the domestic market and the technical barriers they may face in the foreign markets. Below, we present an overview of such issues as domestic regulatory policy and its impact on production and distribution costs. There are several issues such as standardization, certification and testing, sanitary and phytosanitary regulations, and licensing and customs procedures that will need to be addressed in the future to ensure trade mainstreaming at their policy level.

Quality Infrastructure. The overlapping responsibilities of several governmental institutions in the sanitary and phytosanitary area such as the Ministry of Agriculture, the Ministry of Health, and the Sanitary and Phytosanitary Agency create confusion and an additional burden for Higher Value Added (HVA) product exporters. Testing and certification for SPS purposes is the responsibility of the State Sanitary-Epidemiological Service (under the Ministry of Health), Chief State Inspectorate for the

Phytosanitary Quarantine and State Veterinary Inspectorate (under the Ministry of Agriculture). For testing, these bodies may engage the services of accredited state or private laboratories. The requirement that laboratory tests are to be performed on each shipment or type of goods and demands for certification may pose serious constraints on the costs and logistics for HVA exports.

For product standards that are composed of SPS and non-SPS components, the Moldovan Standardization Service, on the basis of the hygiene certificate (for the SPS components) and additional testing (for the non-SPS components), is responsible for certification for conformity with the relevant product standard (conformity certificate).

As for the Hygienic Certificate of the State Sanitary-Epidemiological Service, domestic producers are issued a hygiene certificate valid for up to three years, as long as their production method does not change. Exporters and importers receive a certificate valid only for the shipment concerned.

In the Republic of Moldova, the National Institute for Metrology and Standardization is the agency responsible for certifying exported and imported goods. Thus, certification could be an issue for each separate shipment, a series of shipments, or an entire production process.

The law on standardization regulates state control and supervision over compliance with normative documents of standardization. The Law on Technical Barriers to Trade also has provisions regarding state control and supervision in the field of technical regulations. Control and supervision is done during development, launching production, production, delivery, sales, use, depositing, and transportation of products as well as during the execution of processes and rendering services.

Exported and imported goods are inspected at the customs office of the district where the exporter/importer is registered. Exporters and importers of perishable goods may conclude an agreement by which the production site is issued with a hygiene certificate valid for up to three years, and the goods are stamped with a special stamp indicating that the goods have been produced according to Moldovan SPS requirements. In all cases, the issuance of the hygiene certificate is subject to examination, either of the shipment or of the production facilities (including the products) and subject to the same sanitary requirements.

Phytosanitary Certificate of the Chief State Inspectorate for the Phytosanitary Quarantine is required only for goods to be exported. Exporters must submit the following information: description of the consignment, laboratory analysis (in some cases), indication of possible disinfestation or disinfection treatment.

The institutional and market structure weaknesses in the Republic of Moldova's agricultural sector, as may be seen by the shortage of seed producers and the scarcity

of accredited labs for testing, are reflected in internal market distortions such as the high price of seeds and the high cost of laboratory testing for certification purposes. Licensing requirements (especially those of minimum land area) have the potential to create undue restraints to market competition for the seed and plantation production that are subsequently reflected in the cost for inputs for the HVA products.

Laboratory testing is another procedure associated with certification. Although the fees required for laboratory tests do not seem high, the fees for certification seem excessive and can go as high as 500 USD, depending on the number of products and employees. Taking into account the number of certifications that various contracts require for the export of various goods, these costs quickly add up and become a competitive factor for the exports of such goods, not to mention the time it takes to comply with all these regulations. It is worth noting in this regards that according to the WTO obligations that the Republic of Moldova has committed itself to under Article VIII of the GATT'94, all fees and charges (other than import and export duties) in connection with imports or exports shall be limited to the approximate cost of services rendered and shall not represent an indirect protection of domestic products or a taxation of imports or exports for fiscal purpose. This provision extends to fees, charges, formalities, and requirements for licensing, statistical and customs services, documentation and certification, inspection, and sanitation.

A lengthy and complicated appeal process established by the System Procedure of the National Institute of Metrology and Standardization makes difficult to challenge any inconsistencies that might appear. For the domestic market, the following basic legislation and normative documents regulate the standards, certification and testing for HVA goods:

- Law on Products Conformity Assessment, no. 186-XV, April 24, 2003;
- Law on Technical Barriers to Trade, No. 866-XIV, March 10, 2000;
- Law on Customer Protection, no. 105-XV, March 13, 2003;
- The governmental decision № 996 from 20.08.2003 about the statement of Norms on marks on foodstuff;
- SM 45-2 "Principles and methodology of a Conformity Assessment. Certification of production";
- SM 45-3 "Principles and methodology of a Conformity Assessment. Certification of services";
- RG 29-01-103 "Principles and methodology of a Conformity Assessment. A periodic assessment of certificated production";
- RG 29-01-147 "Principles and methodology of a Conformity Assessment. Acknowledgement of conformity in the form of the declaration on conformity of the manufacturer";
- SM EN ISO 9001 "Quality Management system. Requirements".

Customs Procedures. The formal customs procedures indicated on the Republic of Moldova's Customs Department's official Web site appear to be straightforward:

- a) Completion and receipt of the custom declaration;
- β) Control of the documentation (on discretion of customs officers);
- χ) Verification of payment for customs procedures;
- δ) Physical inspection of goods (on discretion of customs officers);
- ε) Customs clearance.

The process has been automated, but to use it, one has to go through officially registered customs brokers, who are responsible for filling in the customs declarations using a unified online registration system.

The entire procedure is divided into three so-called corridors:

- φ) Green corridor;
- γ) Yellow corridor (requires document verification);
- η) Red corridor (physical inspection of goods).

Unlike in many OECD countries, however, no system is in place in the Republic of Moldova to assign exporting companies to a corridor based on its credit history. Which corridor the exporting entity will pass through is left up to the customs officer's discretion. The two "yellow" steps in the procedure represent the "gray areas" of greater flexibility of customs officers in exercising their mandates. This leads to more time for passing the customs procedures than it could be, as data in Table 13 suggest. Even in the regional context, the Republic of Moldova lags behind its neighbours in terms of time and costs associated with the cross border trade, mostly due to the customs procedures that take additional man-days that add up to the final costs. This creates even more difficulties for exports of HVA products such as fresh fruits and vegetables, where time is of the essence.

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. Refunds typically come in the form of offsets rather than cash. The World Bank's exporter survey showed that only 56% of exporters actually applied for a refund. Exporters incur high costs related to refund delays. According to the survey, the average reported cost of delays is equivalent to 9.5% of export earnings, which is a considerable hurdle for exports²⁷.

Licensing procedures and other impediments for competition in the sector. In spite of the limited number of products subject to import and export licensing, a serious problem is that traders lack information on the specific range of goods covered by an import or export license. Due to the lack of introduction of HS classification of goods, the areas covered by licensing procedures are set in rather broad terms, which

²⁷ 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.

leads to ambiguities in determining which goods or activities fall under the licensing requirements and additional disputes when the licenses examined by the various authorities (including customs) that require them. Ultimately, this may lead to inconsistent application of the licensing and authorization of foreign transactions.

An example of this is the general list of activities that require a license is presented as an extract from the list presented on the website of the Chamber of Licensing of the Republic of Moldova (Table 15).

Tabl	ble 15. Sample licensing fees					
Nr ²⁸	Definition of activities	Fee for license (lei)				
9	Planning of multiyear plantations, vineyards; production and/ or trade with seeds and planting materials	2 500				
12	Import and/or trade with the phytosanitary products and fertilizers	2 500				

Source: Chamber of Licensing of the Republic of Moldova

In addition, for each separate category, the Licensing Guide lists general conditions and requirements for issuing such licenses. For example, one requirement for granting a license for production of planting materials and seeds is the minimal land area owned by the applicant. Some licenses require that the applicant own at least 500 hectares, and for vegetables, an applicant must own at least 50 hectares. This requirement is unduly restrictive; some agricultural land is divided into parcels of less than one hectare each. Moreover, existing studies indicate that smaller farms are more likely to grow HVA products.

Although the government of the Republic of Moldova has recently made some efforts to encourage land consolidation, land used for agricultural production still remains highly fragmented, especially among vegetable producers. Thus, this licensing requirement may be considered a restrictive one, which does not stimulate competition in the area of seed growing and trading.

As a result, the seed and planting material production and imports of agricultural inputs are dominated by just few companies having monopolistic position on domestic market; this drives prices for inputs up and increases costs of HVA products; ultimately, this undermines positions of Moldovan HVA product exporters on external markets.

Currently in the Republic of Moldova, internal policies declare promotion of the production and export of HVA products, but governmental bodies do not take into account basic characteristics of fresh HVA products such as their seasonality, perishability, and market price sensitivity. This is reflected in the rather lengthy procedures required for certification and customs clearance. Although the basic legislation is in the process of being harmonized with the EU regulations, there is still a gap between Moldovan standards and EU requirements, and the list of necessary documents that

28 Number and definition of activity from the list of activities subject to licensing from the Chamber of Licensing official website. have to be presented to get a shipment into and out of customs seems excessive. Taking into account the time constraints, such lists pose a true burden for exporters, and this makes them less competitive.

Another issue is custom tariffs on imports of packaging materials for HVA production ranging from 11% to 15% for carton packages and 10% for glass containers and lids. This is also a factor undermining export competitiveness of the HVA products.

Export-related costs are also high because of insufficiently developed logistical centers and market information dissemination systems; the relatively small scale of operations keeps unit costs of shipments high and access to information costly. This seems to be an area requiring priority attention of the government.

Government efforts should be oriented toward ensuring factors that determine the competitiveness of HVA products: reduced costs of inputs and easy market access including through better internal and external market logistics and lowering tariff and non-tariff barriers to exports. In some cases, exporters have to comply with the GOST standard as well, which in many cases is not harmonized with the EU (EN) or ISO standards used in the EU markets. Compliance with the GOST standard may create problems for exporters to EU markets and vice-versa.

Government support policies. Subsidies are one of the instruments at government's disposal for intervention in the agriculture sector, and in particular, for developing HVA production. The WTO, however, restricts the level (or amount of money) that the Republic of Moldova's government may use to subsidize agricultural producers. Currently this level stands at 13 million SDR (about 14.59 million euro or about 220 million Moldovan lei). Whether this amount is small or large is difficult to assess and must be considered in the light of many factors. First, until 2006 (i.e., five years after the Republic of Moldova committed itself to the WTO limits), the Moldovan government, due to scarce budgetary revenues, could not afford more and used only fraction of this amount, preferring to stimulate the agricultural sector through tax preferences and debt write-offs. The exception was in 2007, when the parliament adopted a special economic liberalization program and subsequently voted for a large debt write-off. About 7,000 legal entities benefited from the 2.5 billion lei debt write-off, 70% of which was accumulated debt of the agricultural producers to the state social fund.

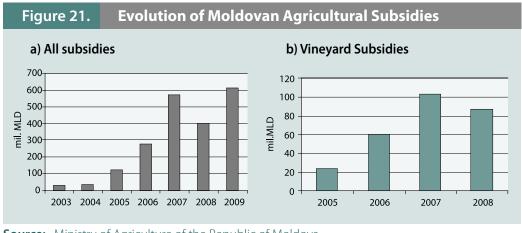
Second, under the WTO Agreement on Agriculture's *de minimis* provisions, there is no requirement to reduce such trade-distorting domestic support any year in which the aggregate value of the product-specific support does not exceed 5% of the total value of production of the agricultural product in question. In addition, non-product-specific support of less than 5% of the value of total agricultural production is also exempt from reduction. Moreover, during the Doha round of negotiations, together with several other newly acceded countries, the Republic of Moldova launched a declaration asking WTO members to consider increasing this limit to

10% of the value of its total agricultural production, as in the case of developing countries. These numbers, in relation to the country's aggregate measurement of support (AMS), represents a level of subsidies so large that even the current budget cannot afford to leave such a wide space for maneuver in the future.

Third, the Republic of Moldova's current level of AMS is comparable with that of Macedonia (16 million euro) and above that of Georgia, Armenia, Latvia, or Estonia, whose level of AMS is zero. For comparison, Ukraine's level of AMS (about 1.1 billion USD) is of the order of its agricultural output.

Finally, one may argue the Republic of Moldova's AMS are significantly lower, if one considers that the Republic of Moldova is surrounded by much larger scale agricultural markets, supported by a higher level of subsidies, which creates a distorting effect on competition for the Republic of Moldova's agricultural production. In the case of HVA and ecological one, however, we must use a product-by-product approach to determine these effects. Agricultural subsidies were introduced more actively starting from the 2005 state budget, which included such elements as direct subsidies for newly planted vineyards and compensation of 60% of the agricultural risk insurance premiums for multiyear plantations and 50% for vegetables. Starting with 2007, up to 80% of agricultural insurance premiums were government-subsidized.

As the government's budgetary capacity increased, new subsidies were added (Figure 21) such as subsidies on phytosanitary inputs in 2005, funded out of the 11.2 million lei financing provided by that year's budget law. In 2006, 18.4 million lei in subsidies for sugar beet growers was provided. According to the Ministry of Agriculture, these increases in subsidies led to a growth in agricultural output of 1.7%.



Source: Ministry of Agriculture of the Republic of Moldova

On the other hand, such measures have to comply with the Republic of Moldova's obligations under the Agreement on Agriculture, particularly its commitments on agricultural subsidies. Increased budget revenues may make it possible to provide greater subsidies, and the legislature may wish granting such subsidies without care-

fully analyzing their volume and whether or not they exceed the negotiated AMS ceiling. So, these subsidies are a dangerous instrument, to be used with great caution. It seems that the government needs to implement careful evaluation of effectiveness and efficiency of the existing agricultural subsidies by comparing the resources spent with results achieved, possible market distortions caused and other possible uses of these money, e.g., support to HVA products, which are not currently receiving these subsidies (apart from vineyards), agricultural extension services, investments into storage facilities, processing, logistics, irrigation or rural roads. It may be also worth considering concentration of remaining agricultural subsidies on identified competitive Moldovan HVA products rather than spreading them across a wide range of crops. Hopefully, these issues would be addressed by the Moldovan Agency for Payments and Intervention in Agriculture, which has been created in February 2010. According to the agency's materials, its interventions are to concentrate on:

- support of farmers' lending from commercial banks and participation in risk insurance mechanisms,
- subsidies for investments into perennial crops, vegetable production on protected land, infrastructure and processing facilities
- purchases of farm, irrigation, livestock-breeding equipment and breeding stock,
- development of organic farming, and
- subsidies to farmers to offset energy costs for irrigation.

All these planned interventions, if properly implemented, are going to re-channel government subsidies to support export-oriented agriculture and agro-processing.

It seems that the burden of technical, licensing and custom regulations may be reduced by:

- shortening of the list of documents submitted with each shipment and simplification/ speeding up of the procedures of the documents' obtaining and presentation;
- the existing requirement of laboratory testing certificate, sanitary, hygienic, and phytosanitary certificates for each shipment may be waived for exporters with established record track;
- reviewing certification fees and procedures to adjust them to the actual and real administration and overhead costs;
- reviewing the appeal procedures to streamline the process of obtaining the necessary documentation;
- abandoning the requirement to comply with GOST at least for those producers, who export their produce to the EU markets, where different standards are used;
- in the longer-term, standards are to be harmonized with the EU ones in the interests of local agricultural producers and exporters;
- streamlining and strengthening of institutional arrangements, business processes and staffing in the government services the exporters must interact with;

- eliminating of "grey" areas in custom clearance process; the exporters of HVA products and other goods with established positive track record should be allowed, by default, using "green" channel;
- defining of a maximum processing time (e.g., 24 hours) for customs clearance of HVA product exports;
- cancelling some of the licencing requirements, which do not critically affect the production process for seeds and planting materials (especially those of minimum land area);
- careful evaluating and coordinating the agricultural subsidy policy in the broader country's foreign trade framework taking into account the Republic of Moldova's WTO AMS commitments.

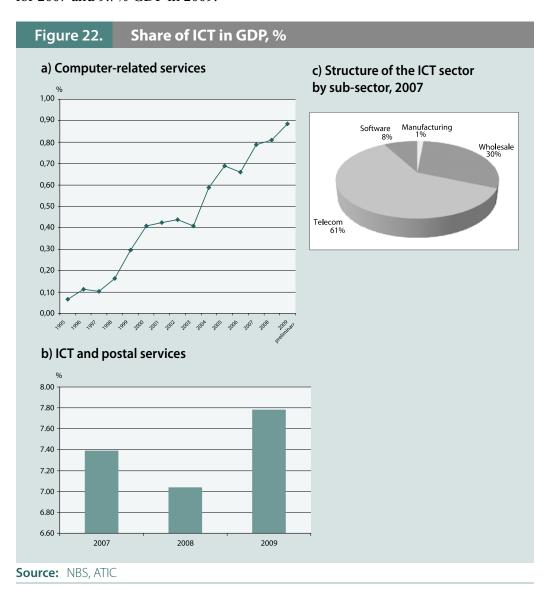
Thus, agriculture and agro-processing industry form a very important sector of the economy of the Republic of Moldova with large share of employment and exports. The sector's development, however, slowed down in 2000s, which led to the fall of its share in GDP and relative (to the country average) wages, which, in turn, result in outmigration of labour from rural area to towns and abroad. The sector has a vast export potential based on the ability of agriculture to produce higher value added products. Expansion of this segment of agriculture is constrained by numerous market imperfections, lack of coordination between different sector participants, and technical regulation problems. In order the Republic of Moldova to increase its exports of HVA products, it has to address the issues of SPS controls, market-friendly standardization, custom controls and other government regulation measures. Existing cumbersome and insufficiently transparent regulation system cuts off the small and medium-sized agricultural and agro-processing enterprises dominating in the sector from participation in international trade. As the structure of the sector is not going to change quickly, and regulations have chances to become more sophisticated as a result of legal and institutional harmonization with the EU system, it seems to be useful to ensure that the sector participants have an opportunity to receive some information support and advice regarding different aspects related to exports of agricultural and food products. This matter is addressed in the proposal for possible AfT intervention, which could be found in Appendix I.1.

4.2. Information and communication technologies

4.2.1. Contribution to GDP, employment, wages, foreign trade and budget

The national accounts data on the ICT sector are measured only since 2007 (with inclusion of postal services). Computer hardware and related services are measured separately for the last 15 years; this sector demonstrates an upward trend, reaching about 1% of GDP in 2009 (Figure 22a). According to NBS, the ICT sector (together with the postal services) reached the level of 7.7% GDP in 2009 (Figure 22b), the highest share since 2007 (7.5%). These data are somewhat different from the Moldo-

van ICT Association's estimates, according to which the ICT sector's share in GDP stood at about 9.5% in 2007 (Figure 22c). ANRCETI gives estimates of 10.4% GDP for 2007 and 9.7% GDP in 2009.



One explanation of this difference might be the shadow part of the ICT sector, which has been taken into account by the Association in its survey of ICT companies. The existence of "shadow market" in the ICT, as anecdotal evidence suggests, could be illustrated by the last year's "fiscal case" on tax evasion against one of the biggest distributor of hardware and software in the Republic of Moldova, which had a dominant position on the market. Many software developers are working on the basis of "outsourcing" contracts with foreign partners without being registered as individual entrepreneurs or legal entities in the Republic of Moldova. Subsequently, they are not covered by the official statistics and are not paying taxes on such activities. Also, the National Bank of Moldova, does not tune its balance of payments statistics to distinguish the direct payments on "outsourcing contracts" to the developers' per-

sonal accounts from the migrants' remittance transfers. Thus, part of exports of soft-

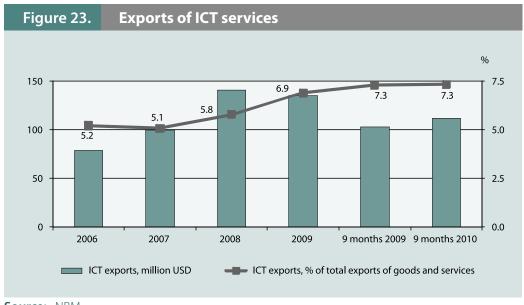
ware development services could be included in the "workers' remittances" item of the balance of payments published by the National Bank.

It should be mentioned that the ICT sector has grown faster than the economy as a whole and may have exerted a positive impact on labour productivity in some sectors such as banking and public administration. It should also be noted that according to the international standards the share of ICT in the Republic of Moldova's GDP is relatively high. According to some sources, the EU average for ICT's share in GDP is 4.5%.

As the ATIC's report suggests, Moldovan ICT sector employs about 20,500 people, which represent 2.7% of the total labour force reported by Moldovan companies to the NBS. It has to be mentioned that this figure includes only ICT specialists working in the companies with ICT profile, but a big number of ICT specialists are working in the ICT departments of companies from other sectors (banking and finance, education, energy sector, public administration). Some other reports suggest that the total number of active ICT specialists may be as high as 40,000 people.

During the last decade, the average salary in almost all services sectors surpassed the national average per economy (Figure 20), especially in financial services, transport and communications thus having a major contribution to the poverty reduction in the Republic of Moldova. The average wages in majority of service sectors are higher than that in agriculture and industry.

Amongst other Moldovan economic sectors, the ICT is one of the most efficient in using the labour force. Based on statistical data for 2007, one ICT worker generated 263,000 lei of added value, as compared with 35,600 lei in the general economy, i.e., ICT workers are 7.5 times more productive than an average worker.



The ICT sector has become a noticeable exporter of services: 105 USD million of communication services and 30 USD million of computer and information services²⁹ in 2009, see Table 9 and Figure 23. Growth rates of the sector's exports are good, between 2007 and 2009 these exports increased by 23% for communications and by 108% (from rather low base) for computer and information services. Importantly, the sector exports grow faster than total exports of goods and services, thus demonstrating very good export expansion potential.

Examples of ICT services exported from the Republic of Moldova include:

- *International calls and data traffic*; this type of services provides a large share of revenue for both fixed and mobile telephony operators (Figure 27);
- *Software*; according to [MIEPO, 2009], about 70% of total production of software companies is exported. Countries collaborating with Moldovan software developers include the US, Russia, the UK, Germany, Romania, and Ukraine. The main competencies in software development in the Republic of Moldova include content management applications, billing and accounting applications, banking systems, encryption utilities, e-commerce applications and electronic mail programs;
- Outsourced services of call centre recently appeared in the Republic of Moldova; the
 economy is favourable for such activity because of the high overall level of education and language skills in the country.

So, the ICT sector has smaller share in employment and exports in comparison to agriculture, but it has already equaled its share in GDP with that of agriculture, traditionally known as a key sector of the national economy. It seems that the demand for ICT services and their exports is going to further increase driven by:

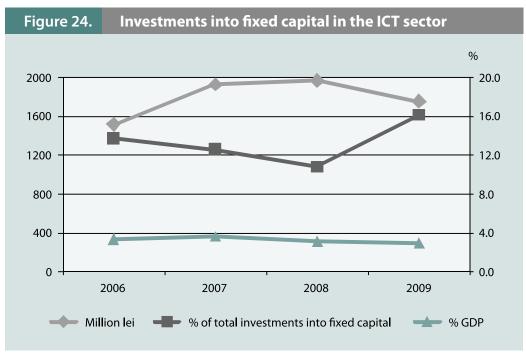
- growth of foreign trade, which is to result from greater openness of the economy due general economic growth and to the forthcoming trade liberalization (see chapter 3.2), and
- growing traffic of personal communications due to labor migration, which does not demonstrate any signs of decline, and general greater mobility of population.

Taking into account the external shocks that affected the Republic of Moldova's trade in goods (including the financial crisis in 1998 and restricted market access for the agricultural goods and wines to Russia in 2005-2006), the ICT sector proved to be more resistant to shocks so far. Importantly, unlike almost all other sectors, the exports of ICT services have not been much affected by the crisis in 2009. In comparison to the previous year, communication services exports fell by 8%, while exports of computer and information services increased by 13%; thus total decline of exports of this sector in 2009 was just 4% compared with 20% reduction of total exports of services and 19% of total exports of goods.

It is also worth noting that the balance of trade in ICT services is positive (66-67 USD million in 2008-2009); exports of these services exceed their imports more than twice.

²⁹ These exports mostly represent software exports including "official outsourcing".

Geographically, exports of communication services mainly follow the patterns of trade in goods and labor migration. Main partners are Russia (35% of total exports of these services in 2009) and Romania (27% in 2009). The computer and information services' exports are geographically diversified; no one country seems to concentrate a significant share of these exports.



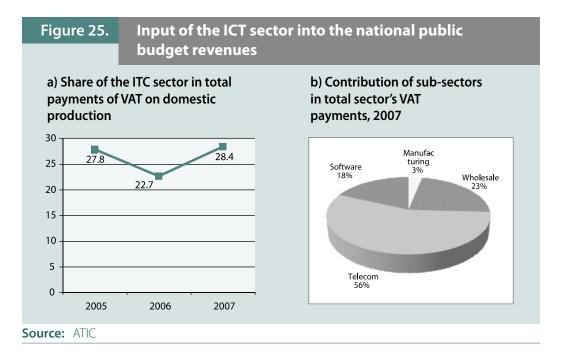
Source: NBS

According to the available statistics on investments in the ICT sector (Figure 24), these investments reached their peak in real terms and in % of GDP in 2007; in the next two years these investments were decreasing being affected by the crisis.

Although the total amount of investments in the ICT sector in the Republic of Moldova may not be very large in absolute terms, at the per capita level the Republic of Moldova is one of the leading countries in the CIS with 53 USD in 2008 and it stands at the same level as Romania and Hungary, however, much below the EU average.

As suggested by the ATIC data, the ICT sector is an important contributor to the public budget in the Republic of Moldova and its share has only grown in the last decade. For example, in 2005-2007³⁰ between 22.7% and 28.4% of all VAT on domestic production paid to the state budget came from the ICT sector (Figure 25a); this share well exceeds the share of this sector in GDP. In 2007, of the total VAT amount paid by the sector, 3% came from the ICT manufacturing sub-sector, 23% from wholesales, 56% from telecommunications, and 18% from the software sub-sector correspondingly (Figure 25b). It should be noted that the ICT companies import a lot of equipment and supplies and, similarly to other importers, face problems of lengthy and cumbersome VAT refund process; this results in additional costs and lower competitiveness of their services.

³⁰ The latest year, for which data could be found.



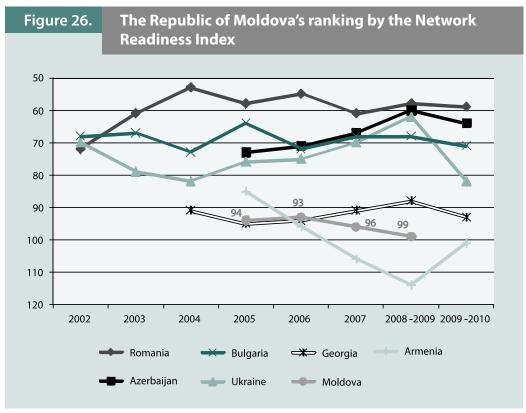
4.2.2. Sector structure and competition

In most EU countries, the ICT sector includes 19 broad industries. These industries can be grouped in four sub-sectors: equipment manufacturing, wholesale of equipment, telecommunications and software developing. According to statistical data, in 2007 only one manufacturing industry was not present in the Republic of Moldova ICT sector (manufacturing of office machinery), while in all other manufacture and services branches at least one company was reported active.

During the recent years the number of companies in the Moldovan ICT sector was rapidly growing: by 36% during the period 2005-2009 – to 1,340 companies in 2009 from 934 in 2005. Of them, 1,214 were active in 2009; this is less than in 2007 (1228), which could be explained by the impact of the global economic and domestic political and economic crisis. Software sub-sector is the most rapidly growing, in terms of number of companies. According to ATIC, this number was 519 in 2007 as compared with 376 in 2005. There is no more recent statistics on this number, because this activity is less regulated, and these companies do not need to hold a license in most of the cases. As a result, they just register as ordinary limited liability companies under the Moldovan law. Many of them are start-ups, created by young people, recent graduates, of which many are closing after few years. So, no exact number exists for this indicator. In addition, there are physical persons working in the ICT sector without creating a legal entity, thus being part of the shadow economy in the ICT. However, since the market is growing and competition becoming fiercer, the sector has to get to a qualitatively new stage of development based on larger numbers of highly trained IT specialists.

The Network Readiness Index is directed at measuring economies' capacity to fully use ICT for enhancing country's competitiveness and development level. Taking

into account that in the modern world the competitiveness position of a country is largely determined by the level of informatization of the society, the Network Readiness Index is a very important indicator for that matter. Although the Republic of Moldova has achieved some progress in the ICT development, its rank in the Network Readiness Index had fallen during 2005-2008 (Figure 26). The decline in the NRI can be explained by the deterioration of competitive market conditions, relatively high prices for mobile communications, and low access to broadband Internet. The large urban-rural development discrepancy also reflects a large urban-rural gap in the Republic of Moldova's ICT development.

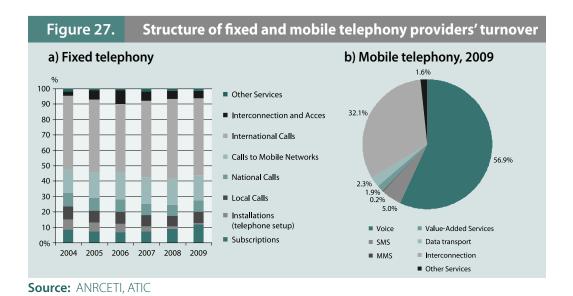


Source: Global Information Technology Report 2009-2010

Communications. The telecommunications infrastructure in the Republic of Moldova has established a strong foundation for the modern development of fixed telephony. The fixed line penetration rate significantly exceeds the average figures for the CIS and CEE. Yet the penetration rate for mobile telephony is rater lower than the average for the CEE or these rates in its immediate neighbors, Romania and Ukraine.

In absolute terms costs of communication services, including mobile, in the Republic of Moldova are not high. Effective mobile tariffs are on average 0.07 USD per minute, with average revenue per user at about 10-12 USD/month.

The main player in the fixed telephony market is Moldtelecom JSC with a market share of 98.1% in 2009. The largest share of turnover recorded in the structure of fixed telephone service providers (50%) were revenues from international calls (Figure 27a), followed by revenues from calls to mobile networks (16.4%) and by those from subscription sales (11.8%).



By 2006 the mobile market had been operated by two providers: Orange Moldova JSC and Moldcell JSC. From 2007 to 2009 there were four providers in this market: Orange Moldova JSC, Moldcell JSC, Eventis Mobile LLC, operating in GSM standard and Moldtelecom JSC – in CDMA 2000 standard. The largest share of this market is held by Orange – 73.1% in 2009, followed by Moldcell with 23.2%. Within the turnover structure of mobile providers (Figure 27b), the most significant share in 2009 (56.9%) went to voice service sales. The revenues from interconnection services made up 32.1% and those from other services – 10.9%.

In 2009, the turnover of service providers in the TV/radio market was 232.77 million lei. The largest share in turnover (46.1%) was recorded by air TV service; the share of revenue from cable TV service provision was 41.1%, and 12.8% from air radio services. The cable radio sector recorded 109 thousand lei turnover, which constitutes about 0.05% of total sales.

Computer and internet access. The proportion of households with computer was 33% in 2009, though most of them live in the central region of the Republic of Moldova. The other regions (Northern and Southern) are less developed in this regards. There are several causes for such situation among which the most important are: (i) poor infrastructure development, and (ii) lower purchasing power of the population living in the regions. About 28% of the population have internet access. Still, the proportion of users who have the broadband access is relatively low, about 8.9%. Though such a low penetration rate of broadband access can be compared with other CIS countries, it is several times lower than in the CEE countries. Low broadband penetration is a critical constraint on the way of development of the ICT sector. However, the number of subscribers to broadband services is constantly increasing. In 2006 it was 21 thousand subscribers, increasing almost 9 times in 3 years, to 187 thousand in 2009. According to the recent survey carried out by Moldtelecom, among these subscribers there are users of various e-services such as shopping online (about 7% of internet users) and internet banking (about 4%).

The largest share of this market is held by Moldtelecom – 71.5% in 2009, followed by Starnet with 15.5%, Sun Communications with 4.4%, Orange with 1% and other providers with a share of 7.6%.

As follows from the above discussion, both the sub-sector of communications and the sub-sector of computer and information services are characterized by monopolistic structure. Some of the sector participants (Moldtelecom) are in position to exert market power by limiting other sector participants' access to state-owned infrastructure and keeping prices for this access well above marginal costs with obvious adverse consequences for export competitiveness of the sector. The National Regulatory Agency for Electronic Communications and Information Technology has to enforce equal access of all companies in the sector to this infrastructure at reasonable prices. Related issue is poor regulation of the interconnection rates, which spoils conditions for free competition and enables big market players to exert even higher influence; adoption of appropriate interconnection rate policy is needed. One more problem is access of the sector to public infrastructure (getting rightsof-way in sewage ducts or other public infrastructure) and application of irrelevant regulatory rules to telecommunication infrastructure. All these issues require close dialog between the ICT sector participants and the Government and implementation of public-private partnerships in the sector.

Deep involvement of the sector into the foreign trade makes the economy-wide issue of timely VAT refunds the most sensitive for the ICT companies. Accounting rules, expenditure recognition for taxation purposes and other administrative procedures all make business in the sector more cumbersome resulting in lower competitiveness of the companies on the domestic and foreign markets, These are also factors keeping part of sector (e.g., software development) in the informal economy reducing opportunities of this promising sub-sector's participation in international trade.

Last, but not the least, a structural problem of the sector is insufficient professional training of recent university graduates, which does not allow them contributing to development of sophisticated services the ICT sector is to provide to its clients. It is a consensus view of the sector managers that the education programs and methods at the universities are outdated and weak business-university linkages do not serve as a feedback mechanism providing incentives for universities to upgrade their ICT-related programs. The ICT companies would like to partner with the universities in modernization of university ICT curricula and creation of strategic alliances with world recognized universities and ICT excellence centers.

Summarizing the above discussion, the ICT sector demonstrates pretty good output and export performance and is becoming an important employer and contributor to the government budget. It is a driver of human development in the country already and could become even more important in the future, if the sector problems discussed above are addressed. One of these problems, which seem to be directly related to the expansion of the export potential of the country, is a need in upgrading the level of professional development of young specialists in the sector. This issue is addressed in the project proposal in the framework of AfT programme (see Appendix I.2).

5. CONCLUSIONS

The analysis conducted in the paper indicates that the trade performance is strongly linked to the macroeconomic developments in the Republic of Moldova; dynamics of GDP and exports and imports are mostly synchronized. Production and trade indicators grew rapidly in the pre-crisis period, suffered from a deep decline in 2009 and seem to recover well in 2010 as preliminary statistical data suggest. The role of trade is very high in the economy; not only the economy as a whole, but also majority of sectors are very much dependent on the international trade. Exports are mostly driven by the situation on the foreign markets and are not very sensitive to international price or real exchange rate changes; in contrast, imports seem to be quite sensitive to price signals. This seems to indicate that domestic inflation developments are very important for imports dynamics, and in the case of the Republic of Moldova controlling inflation could be much more effective domestic market protection policy than explicit protectionist policies.

Human development level in the country somewhat exceeds its level of economic development. Sectors responsible for human development—education, health, environment protection etc.—are heavily dependent on public financing. It also follows from the data that government budget revenues are strongly dependent on the trade performance, so improvements in public financing of all human development activities are linked to the foreign trade development as well as with general increase in efficiency of public service delivery.

Employment dynamics in the country is correlated with production growth and, importantly, growth of exports, and sector shifts in employment are broadly consistent with the changes in sector structure of production and exports. It follows from the sectoral analysis that agriculture and agro-processing industry still remains a large source employment and exports, while its share in GDP is going down. On the other side, services are on the rise, and their shares in GDP, exports and employment have clear increasing trends.

Low labour costs continue to be among the comparative advantages of the economy of the Republic of Moldova, but the costs are growing and these advantages are disappearing rather quickly.

Productivity growth and market access of many actual and potential participants of foreign trade in the Republic of Moldova is inhibited by different structural problems of the economy including regional inequalities, high degree of informality, inappropriate labour force skills etc.

Analysis of trade performance suggests that exports consist of three main components: (i) exports of agricultural and food products including wine, (ii) re-exports

of garments and other consumer goods, and (iii) exports of services. The share of technologically sophisticated goods and services is rather small so far. Imports are dominated by energy products; the share of capital goods in total imports is smaller than one might wish to see in a developing economy.

Geographical concentration of trade is very high, currently the trade is split almost half by half between the EU and the CIS markets. Export market diversification seems to be an important immediate task of the trade policy. This diversification should make economic and human development of the country less sensitive to different exogenous shocks.

Trade regime of the country is fairly liberal; import barriers are not high. Liberalization of trade has been greatly supported by the participation of the country in the WTO and different free-trade agreements. External environment for Moldovan exports is also comparatively favorable. Tariff barriers and quantitative restrictions on the main export markets are few or absent. However, different technical barriers and quality requirements applied unilaterally seem to be the key impediment for the export expansion. It seems that key trade policy issue is establishing more predictability in trade relationships with main trade partners.

Significant changes in the trade regime could be anticipated in the short- and medium-term. This is related to the re-establishing of the CIS free trade area and formation of the Custom Union of Belarus, Kazakhstan and Russia to be transformed later into Single Economic Space as well as to the prospects of concluding Deep and Comprehensive Free Trade Agreement with the EU and FTA with Turkey. These changes offer many opportunities for further trade development, expansion of exports, getting greater efficiency gains on domestics market, which are to result in better business and employment opportunities and general upgrade of legal and institutional environment in the economy. However, these moves towards further trade liberalization are not going to be costless; some sectors/population groups could lose from the change, and this issue needs to be addressed timely and properly.

While trade regime for exports from/imports to the Republic of Moldova is, in general, rather favourable, the business environment in the country seems to be a factor lowering the competitiveness of the goods produced in the Republic of Moldova. The Republic of Moldova stays low in different international business and investment climate rankings. This reflects some objective problems of the economy (small size of the economy and inability of many companies to enjoy economies of scale or insufficient resources for transport infrastructure development), but also governance imperfections, e.g., inappropriate functioning of custom and border controls.

Improvement of the business climate requires considerable investments into public infrastructure and attraction of FDI. Investment performance of the country in recent years was mixed and correlated with the trade developments. It could be noted

that export-oriented or export-supporting (e.g., transport infrastructure) sectors managed to attract only limited investment resources so far.

The analysis suggests that the costs of doing business are more serious issue for exports from the Republic of Moldova than trade policy and real exchange rate issues. Improvements in performance of government agencies serving trade flows (customs, border controls, certification etc.), regulatory reforms, development of transport, financial and other infrastructure are needed for further trade development in the country.

There is a lot of evidence on direct linkages between trade and human development in the country. In general, increased openness of the economy positively contributes to growth of the country's human potential. Therefore, overcoming of the existing barriers for export expansion is a priority task. As follows from the analysis of the trade regime and business climate, these barriers seem to be mostly on the supply side. So, sector-specific government and donor interventions, including those in the Aid for Trade framework, are needed to address these constraints for export growth.

Analysis of the agriculture and agro-processing industry and ICT indicates that these sectors have great export potential. Improvement of export performance of these sectors could significantly contribute to the human development of the country in a number of ways including poverty reduction in rural areas, creation of employment opportunities for mobile, young and educated part of the population reducing incentives for them to migrate abroad, exerting some pressure on the government institutions to upgrade their arrangements and practices, building on demand for modernization of all cycles of the professional education system. Each sector has its own set of issues to be addressed in order to overcome existing barriers to export expansion. In agriculture and agro-processing, these relate to the TBT agenda, custom procedures and agricultural subsidies. In the ICT sector, key issues relate professional training of labor force and establishing and maintaining competitive environment.

Key general recommendations, which seem to follow from the contents of the study, include:

- Maintain competitiveness of Moldovan production by conducting responsible macroeconomic policies including control of inflation;
- Continue liberalization of trade regime in the country through active participation in existing free trade arrangements and careful negotiation of new ones especially the DCFTA with the EU, which has a potential of greatly expanding export and investment attraction opportunities for the Republic of Moldova and upgrading legal and institutional environment in the country;

- Improve business climate in the economy through simplification and increased transparency of technical regulations, custom and border procedures, tax regime and other factors influencing business and investment activities in the country;
- **Support investments into infrastructure** needed for export expansion including both publicly provided roads and other transport facilities and privately provided storage facilities, logistics etc.;
- Evaluate and possibly re-channel the agricultural subsidies and other forms of enterprise support towards greater efficiency and more impact in terms of export expansion;
- **Maintain competitive environment** in the export-oriented sectors of the economy and support SMEs trying to become exporters of their produce;
- Support exports of higher value added products by creating for them friendly environment in all government services dealing with exports;
- Improve professional education system in the country in order to supply exporters with properly trained labor force; this could be achieved through better interaction of educational establishments with private sector, creation of flexible forms of professional training, coordination of curricula with the needs of companies operating in the export-oriented sectors;
- Strengthen the human and institutional capacity of the country to conduct relevant trade policy analysis by supporting the government and non-government sector experts' capacity to produce comprehensive economic and social analysis of policy proposals using modern analytical tools including quantitative models.

Detailed Action Matrix is provided in Appendix II.

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Appendix I.I. CONCEPTS FOR THE TECHNICAL ASSISTANCE PROJECTS. AGRICULTURE AND AGRO-PROCESSING

Background

The Republic of Moldova has a number of comparative advantages in agriculture and in production of higher value added products related to its soils, climate, existing infrastructure and skills and experience of people employed in the sector. To utilize these advantages, the private sector in agriculture needs to be competitive. Its competitiveness critically depends on how well the market is organized and whether it maximizes productivity along the entire chain of activity from inputs of raw materials to marketing of final goods. Although there are associations to support farmers, producers, processors, and others throughout the industry these groups have yet to make a significant impact on the operations of the various players within the sector. Among different segments of the agricultural sector in the Republic of Moldova, fruit production and processing seem to have large production and export growth potential especially with regards to HVA products.

The lack of market information is a major problem for the Moldovan private sector. The situation is particularly acute for farmers who reside in rural areas where information flows much slower and it is not always reliable once it reaches the farmer. Most producers and processors lack basic information on which products to grow, which markets and distribution channels to choose, what procedures are to be taken and in what sequence in order to export agricultural products, and who their primary competitors might be in external and even domestic markets.

The Republic of Moldova also lacks a functioning network of wholesale markets. There is one wholesale market in Chisinau which is described as chaotic and monopolistic. Not only is there a need to have additional wholesale markets throughout the country, but sellers of fruits and vegetables need to have better access to market pricing within their local communities and throughout the country. In this way sellers will be in a better position to direct their goods towards a market that would provide a more favorable outcome for them.

Market infrastructure (cold stores, packing houses) and part of irrigation infrastructure (i.e. on-farm irrigation equipment), on the other side, should be privateled investment initiatives. The state, preferably in collaboration with donors, should support and encourage these types of investments. Information on successful business models is critically important acting as effective catalyst for investments and triggers for the mass replication of success stories.

The project's goal: Establishing pilot *agricultural export information and business advisory center*. This center is to provide farmers and agro-processors from different parts of the country with relevant and up-to-date information on export procedures, domestic and international prices, changes in government policies and regulations.

Main beneficiary of the technical assistance: Moldovan Association of Fruit Producers (Moldova-Fruct)

The reason for proposing the Moldovan Association of Fruit Producers is the fact that currently "Moldova Fruct" comprises over 40 members holding more than 10,000 ha of horticultural surfaces, being the most powerful producers and exporters in the Republic of Moldova and having access to full range of information on fruit production chain. The association is in process of growth and includes a large number of manufacturers, distributors and exporters of horticultural products.

The main goal of "Moldova-Fruct" is to strengthen the fruit production industry, thus activating in a closed cycle comprising the following components: establishment of new orchards with biological material of international standards, production, harvesting, storage, sorting, packaging, processing and sale of production. Provision of services to its members and others interested in the fruit sector development is one of the basic functions of the Association.

Deliverables of the proposed project

Tasks:

- Establishing the centre as a non-commercial private body under the auspices of "Moldova-Fruct":
- Establish effective flow of technical, market and other relevant business information to the center's clients; the clients would be the association members and all other parties interested in the services provided by the centre;
- Help developing the business plan for the sustainability of the project;
- Facilitate the dialogue between the sector stakeholders.

Proposed activities of the center on the first phase of its existence would include:

1. Create and regularly update and maintain a database of market information including data on prices on domestic and international markets, sector-related technical regulations, standards, export market quality requirements, service fees.

- 2. Disseminate this info through a newsletter for subscribers, information campaigns, responses on individual requests of clients etc.
- 3. Collect and disseminate information on best business practices in the fruit-production sector including advanced solutions for plantation and harvesting, storage, transportation, packaging etc.
- 4. Conduct analysis of the problems relevant for the sector and prepare "white papers" on such issues as soil and irrigation water, plant protection, SPS measures and the like.
- 5. Providing concrete advice to the SMEs in the sector on potential financial solutions including leasing, capital investment, technical credits from suppliers, on the effective business plan preparation suitable for possible investors/creditors, on modern technological solutions and sources of necessary equipment/materials etc.
- 6. Monitoring all components of production costs in the sector and developing model budgets for some groups of products; these budgets should reflect the break even levels thus demonstrating the need for compliance and achievement of appropriate technological level of production in order to have a profitable organization of the orchards.
- 7. On-site assistance to farmers, e.g., in the analysis of fruit ripening and in accurate establishment of harvesting period.
- 8. In case the centre's performance appears to be satisfactory, it has to support creation of its branches in other parts of the country and similar centres in other sub-sectors of agriculture.

The services of the center are going to be fee-based although fees may be subsidized for certain categories of clients conditionally a necessary support is provided by the government/donors.

Total proposed budget -380,000 USD of which Moldova Fruct would contribute 10%.

Continuation of the project – 24 months.

Appendix I.II. CONCEPTS FOR THE TECHNICAL ASSISTANCE PROJECTS. ICT SECTOR DEVELOPMENT

Background

The Moldovan ICT sector has grown faster than the economy as a whole and may have exerted a positive impact on labour productivity. It should also be noted that according to the international standards the share of ICT in the Republic of Moldova's GDP is relatively high, accounting for about 9.7% of GDP in 2009 according to the Moldovan National Regulatory Agency for Electronic Communications and Information Technology. ICT became a noticeable exporter of services (135 USD million in 2009). ICT sector is technology/knowledge-based and could become a driver of human development of the country.

According to the report of the National Association of IT Companies (ATIC), Moldovan ICT sector employs about 20,500 people or 2.7% of the total labour force reported to the statistical office by Moldovan companies. Some other reports suggest that the total number of active ICT specialists may go up to 40,0000 people.

ICT sector is a growing exporter of services (more than 20% of total exports of services in 2009) with very good expansion potential.

ICT sector development strategy is intended to improve the Republic of Moldova's competitiveness globally by improving the public sector's use and management of its technology assets. Government of the Republic of Moldova (GOM) has launched an extensive program to introduce E-Government as a means of driving greater transparency and efficiency in the delivery of public services to the people and businesses of the Republic of Moldova.

The Republic of Moldova's National E-Transformation Road Map among the other things includes the following priorities:

- a. In the area of ICT sector transformation Improvement of ICT education curricula
- b. In the area of ICT Industry Development Develop ICT Manpower
- c. In the area of Digital and Social Inclusion Raise ICT awareness and access for all

Due to rapidly evolving governmental initiatives on E-governance-E-transformations and National Spatial Data Infrastructure a considerable need for educated workforce in ICT is observed.

Lack of IT specialists in particular domains or their poor database were named one of the major risks towards successful implementation of those projects.

To ensure capacity building for the national initiatives and successful implementation of those it is important to consider the launch of a project to enhance those capacities starting from the basic level of the education system. Currently level of education in IT is insufficient; this triggers young specialist to take additional courses to qualify for entry positions in companies or offering low quality services to administrative bodies. Also, existing employees of IT companies need to invest significant budgets and time in advancing technical levels of the newcomers in order to put them on track with up-to-date tasks in those companies.

In order to improve the situation in this respect and diminish these deficiencies, as well as satisfy the demand for qualified and educated workforce it is proposed to develop a project with several activities aiming at the above goals.

The project's goal: Establishing *ICT continuous education centre* This centre is to become a facility supporting universities in upgrading their curricula and education activities in the IT issues and providing necessary non-degree training on the most demanded professional topics. The focus of the centre's activities is to be directed on those subjects/training topics, which are most needed for expansion of ICT services exports.

Main beneficiary of the technical assistance: Moldovan Association of IT Companies (ATIC)

The reason for proposing the National Association of IT companies is that it is the representative body of the ICT sector in the Republic of Moldova, which includes the most of ICT companies in the country.

Deliverables of the proposed project

Tasks:

- Establishing the center as a non-commercial private body under the auspices of ATIC
- Provide assistance and training
- Coordinate the work of the government, universities and private sector for this initiative
- Help developing the business plan for the sustainability of the project
- Facilitate the dialogue between the vendors, private sector and academic staff

Proposed training activities of the centre on the first phase of its existence:

1. Developing course materials and additional manuals for universities and short-term non-degree programs for the following topics:

- Development frameworks: Java or .NET
- Web development using WebAPI: FLEX, Silverlight
- Programming applications for ArcGIS Server platform
- 2. Introducing special incentive programs for future teaching staff of these topics including exchange of experience and internships in leading international universities and companies and participation in conference and seminars; in addition to that, some stipend could be offered for the most successful applicants contributing to creation and teaching of the above courses.
- 3. Introducing vendor-initiated curricula in higher education institutions.
- 4. Certification of university teachers in the areas they will be delivering the courses. There should be a public-private partnership model involved as there are already certain specialists coming from private business that are able to conduct the training. While the university teachers will gather experience, the private business instructors will be able to offer the courses and partner up with the new experienced teachers, who would contribute the knowledge of the subject and practical teaching skills.
- 5. Implementing carrier coaching program, which would include internship program development, its promotion among potential beneficiaries, and first wave of the internships in the companies of the sector. These internships would offer university students with an opportunity acquire skills and receive experience for their future job as well as getting credits for their ongoing formal education in the universities. For the companies in the sector, this would allow acquiring some labour force to be trained in the IT management and IT skills, so that they get experience before getting hired.
- 6. Supporting conference participation of the sector professionals involved into the centre's training programmes. It is very important to have the knowledgeable workforce which is exposed to the state-of-the-art technology, and thus interacting with their peers abroad. The conferences suggested below just indicate the type of knowledge sharing events to be supported by the project.

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CEBIT, Hannover – 1-5 March 2011, www.cebit.de
GITEX, Dubai – 9-13 Oct, 2011 in www.gitex.com
NASSCOM forum – 9-11 Feb 2011, nasscom.in
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EUC, Madrid – 26-28 Oct 2011, www.esri.com/events/euc Gartner – 7-9 March 2011, gartner.com

Total proposed budget of the project -250,000 USD

Continuation of the project – 18 months.

Appendix II. ACTION MATRIX

No.	Action	Expected outcome	Time frame	Agencies involved	Desirable donor assistance		
	1. Trade policy						
1.1	Continuation/beginning of negotiations on DCFTA with the EU and Free Trade Agreements in CIS and with Turkey	Geographical diversification of trade, more predictable regime for Moldovan exports, institutional and legal upgrade of trade regime in the country	2011-2014	Ministry of Economy, other relevant ministries and agencies	Advisory services on assessment of different policy proposals, institutional support of the negotiators		
1.2	Establishing permanent trade policy coordination structures and processes	Consolidated government position on all traderelated issues, no mismatch between domestic policies and international trade commitments (e.g., WTO ceiling on agricultural subsidies)	2011	Ministry of Economy, other relevant ministries and agencies			
1.3	Strengthening of trade negotiation capacity based on WTO rules	Stronger position of Moldovan negotiators in the CIS/CU bodies	2011-2012	Ministry of Economy, other relevant ministries	Training on different aspects of negotiations		
1.4	Full elimination of any arrangements discriminating importers	More competitive environment on domestic market, better enforcement of international commitments of the country	2011	Ministry of Economy, other relevant ministries and agencies	Advisory services on assessment of changes in the trade regime		
1.5	Reduction/zeroing import tariffs for essential production inputs especially needed for HVA exports	Expansion of HVA product exports	2011-2012	Ministry of Economy, Ministry of Finance, other relevant ministries and agencies	Advisory services on assessment of economic and fiscal consequences of this trade regime change		
	2. Macroeconomic, fiscal and structural policies						
2.1	Control of inflation	Prevention of real exchange rate appreciation; stronger position of Moldovan producers on domestic and foreign markets	2011-2014	National bank of Moldova, Ministry of Finance, Ministry of Economy	Advisory services on monetary and fiscal policies		

No.	Action	Expected outcome	Time	Agencies	Desirable donor
140.	Action	Expected outcome	frame	involved	assistance
2.2	Simplification of and speeding up the process of VAT refunds for exporters	Lower costs for exporters and their increased competitiveness	2011-2012	Ministry of Finance, Ministry of Economy	Advisory services on practical implementation and appropriate procedures for speeding up the VAT refunds
2.3	Reviewing the appeal procedures at regulatory agencies	Reduced discretionary power of government officials with less potential for corruption and lower business costs for exporters	2011-2012	Ministry of Economy, other relevant ministries and agencies	Advisory services on the best international practices with regards to the appeal procedures
2.4	Reducing licensing requirements for foreign trade operations	Lower costs for exporters and increased completion in import supplies	2011-2012	Ministry of Economy, other relevant ministries and agencies	Advisory services on the best international practices with regards to the licensing requirements
2.5	More transparent and less cumbersome regulation of the ICT sector	Lower business costs, increased competition in the sector and expansion of its exports	2011-2013	Ministry of Economy, other relevant ministries and agencies	Advisory services on the best international practices on regulation of the sector
2.6	Harmonization of legislation related to public procurement with the EU's acquis	More transparent, competitive and cheaper procurement of goods and services by the government	2011-2013	Ministry of Finance, Ministry of Economy, other relevant ministries and agencies	Advisory services on the best international practices on public procurement
	3. Building analy	rtical capacity for trad	e policy mak	ing and implemer	ntation
3.1	Strengthening analytical capacity in the trade issues in the public and private sector	Improved analysis and forecasting of economic, fiscal, social and environmental developments resulting from trade regime changes	2011-2015	Ministry of Economy, other relevant ministries and agencies, non- governmental analytical centres and business associations	Training on the analytical concepts and hands-on training in building appropriate models
3.2	Training of civil servants in trade policy issues	Better preparedness of the government to consistently implement export- friendly policies	2011-2015	Ministry of Economy, other relevant ministries and agencies	Support to the training programs

			Time	Agencies	Desirable donor
No.	Action	Expected outcome	frame	involved	assistance
3.3	Development of monitoring and evaluation systems in trade-related issues	Better planning of trade-related interventions and assessment of the impact of other government policies on trade	2011-2015	Ministry of Economy, other relevant ministries and agencies	Advisory services on the best international practices in monitoring and evaluation of the government interventions
	4. Business awar	eness-raising on trade	policy and	development of di	alogue
		between business	1	1	
4.1	Development of public- private partnerships to promote trade	Utilization of private sector's potential in intra-sector regulation (e.g., in ICT) benefiting exporters; pooling resources to develop critically important export-related infrastructure (in logistics etc.)	2011-2015	Ministry of Economy, other relevant ministries and agencies, private companies and business associations	Concessional loans for trade- related PPPs, advisory services for development of legal and institutional environment for such partnerships
4.2	Raising awareness on international trade and trade policy	Better information of businesses on the opportunities for and constraints to foreign trade and trade regimes on foreign markets	2011-2015	Ministry of Economy, other relevant ministries, non- governmental analytical centres and business associations	Support to the awareness-raising programs
4.3	Raising awareness of national exporters on standards and technical requirements	Preparedness of Moldovan exporters to face standard and technical requirements on the European and other markets	2011-2015	Ministry of Economy, other relevant ministries, non- governmental analytical centres and business associations	Support to the awareness-raising programs
4.4	Public consultations on trade policy	Raising public support and early warning on potential problems in the ongoing trade negotiations	2011-2015	Ministry of Economy, other relevant ministries, non- governmental analytical centres and business associations	

No.	Action	Evnosted outcome	Time	Agencies	Desirable donor			
NO.	Action	Expected outcome	frame	involved	assistance			
	5. Creating a favorable business environment							
5.1	Reorientation of agricultural subsidies and other forms of enterprise support to export activities	Better infrastructure for exports and export expansion, especially in agriculture and agro- processing	2011-2012	Ministry of Economy, Ministry of Agriculture, Ministry of Finance, other relevant ministries	Advisory services on the best international practices in agricultural support programs			
5.2	Development of market information systems	Better awareness of businesses on the situation on export and domestic markets	2011-2015	Ministry of Economy, other relevant ministries and business associations	Advisory services and seed money for institutional establishment of market information systems public- private bodies			
5.3	Human potential development for export- oriented sectors	Strengthened production capacity of the exporters (e.g., in the ICT or agribusiness)	2011-2015	Ministry of Economy, other relevant ministries, universities and professional education establishments and business associations	Advisory services and seed money for institutional establishment of non-degree professional training centers in selected sectors and strengthening of professional education establishments			
5.4	Development of public- private business advisory services	Easy access of farmers and other business people to the best practice information in the area of production, marketing etc.	2011-2015	Ministry of Economy, other relevant ministries and business associations	Advisory services and seed money for institutional establishment of business advisory services			
		6. Infrastructure	e developme	nt				
6.1	Transport infrastructure development	Lower transportation costs for foreign trade participants	2011-2015	Ministry of Transport, Ministry of Finance, Ministry of Economy	Concessional loans for development of transport infrastructure			
6.2	Support to development of logistical services	Public-private logistical centers created lowering costs for exporters	2011-2015	Ministry of Finance, Ministry of Economy, private companies	Concessional loans for development of logistical infrastructure			

No.	Action	Expected outcome	Time frame	Agencies involved	Desirable donor assistance
6.3	Development of trade finance	Lower finance costs for exporters	2011-2015	Ministry of Finance, NBM, Ministry of Economy, commercial banks	Concessional loans for development of trade finance
	7. Sta	ndards, technical regu	ulations, cus	toms controls	
7.1	Harmonization of the technical regulation system with the EU standards	More consistent and export-oriented regulation system	2011-2014	Ministry of Economy, other relevant ministries and business associations	Advisory services on the best international practices in the technical regulation of trade
7.2	Removal of excessive standard requirements	Lower costs for exporters	2011-2012	Ministry of Economy, other relevant ministries and business associations	Advisory services on the best international practices in standardization
7.3	Quality infrastructure development (equipping testing labs, etc.)	Expanded export opportunities for Moldovan producers	2011-2015	Ministry of Economy, other relevant ministries and business associations	Concessional loans for development of quality infrastructure
7.4	Implementation of TBT and SPS reforms	More consistent and export-oriented regulation system	2011-2014	Ministry of Economy, other relevant ministries and business associations	Advisory services on the best international practices in TBT and SPS measures
7.5	Simplification of custom procedures for exporters, especially for producers of HVA products/ perishable goods and those with established track record	Lower costs and losses on the border for exporters/ importers	2011-2012	Ministry of Economy, customs service, other relevant ministries and agencies	Advisory services on the best international practices in customs controls
7.6	Reduce certification fees	Lower costs for exporters	2011-2012	Ministry of Economy, other relevant ministries and agencies	

NOTES:

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