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Republic of Moldova

Trade Study

Moldova Trade Study - Overview

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Moldova Trade Study

Overview

The World Bank

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Table of Contents

	9
2. Analysis of Export Performance	. 12
3. Constraints on Moldova's Export Competitiveness	. 18
3.1 Linking Productivity and Quality of Backbone Services	. 19
3.2 Governance and Institutional Quality	. 19
4. Modeling of Trade Policy Options for Moldova	. 20
5. Enhancing Moldova's Agriculture Competitiveness	. 26
6. Performance of Free Economic Zones In Moldova	. 28
6.1 Dynamic Gains	. 29
7. Recommendations	. 30
List of Figures	
Figure 1. Real GDP in Moldova and Regional Peers, Average Growth Over 2000-2014	9
Figure 1. Real GDP in Moldova and Regional Peers, Average Growth Over 2000-2014	
	9
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13 . 13
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13 . 13
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13 . 13 . 15
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 13 15 16
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13 . 13 . 15 . 16 . 18
Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012	9 . 13 . 13 . 15 . 16 . 18 . 19

Figure 12. Decomposition of DCFTA Gains, Average Growth over 2015-2024, in p.p	25
Figure 13. Decomposition of CU Gains, Average Growth over 2015-2024, in p.p.	26
Figure 14. Major Segments of Moldova's Agri-Food Exports, 2010-2014 (US\$)	27
Figure 15. Investments in Moldovan FEZs	29
Figure 16. Exports Dynamic of FEZs	29
Figure 17. Share of industrial sales and attracted investments	30
List of Tables	
Table 1. Top 10 Exported Products	14
Table 2. Top 10 Destinations	15
Table 3: Summary Indicators on Trade Competitiveness – Moldova & Comparators	17
Table 4. Policy Recommendations	31
List of Boxes	
Box 1: Assessing the Impact of Different Trade Policy Options Using a DCGE Model	21
Box 2: Association Agreements with the EU and FDI Inflows	23

Acronyms

AA Association Agreement

ATP Autonomous Trade Preferences

CEECs Central and Eastern European countries

CIS Commonwealth of Independent States

CU Customs Union

DCFTA Deep and Comprehensive Free Trade Agreement

DCGE Dynamic Computable General Equilibrium

EU European Union

EPS Entry Price System

FDI Foreign direct investment

FEZ Free Economic Zones

FTA Free trade agreement

GDP Gross domestic product

MFN Most Favored Nation

SAM Social Accounting Matrix

SPS Sanitary and phytosanitary standards

TFP Total Factor Productivity

WTO World Trade Organization

1. Introduction

1. **Despite strong economic growth since 2000, Moldova remains one of the poorest countries in the region.** Excessive reliance on remittances, export dependency on a few products, and insufficient domestic job creation make the Moldovan economy highly vulnerable to external conditions. Although the country grew at an annual average of 4.9 percent between 2000 and 2014 (Figure 1) and managed to significantly reduce poverty (Figure 2), it remains the second poorest country in the region with a 46 percent poverty rate according to the regional poverty line of US\$5/day.

Figure 1. Real GDP in Moldova and Regional Peers, Average Growth Over 2000-2014

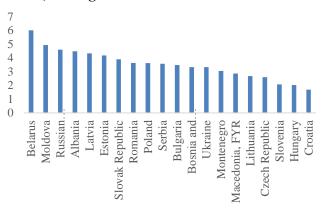
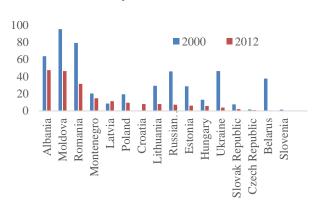


Figure 2. Poverty Rate in Moldova and Regional Peers at US\$5/day, 2000 and 2012



Source: Authors' calculations based on data from WDI and national authorities.

- 2. **As a small and open economy, Moldova's development potential is linked to its trade and investment integration strategy.** Moldova is situated between two large markets: the European Union (EU), which absorbs more than half of Moldova's exports, and the Russian Federation. As the economy has become more open over the last 20 years, the value of trade has quadrupled. However, Moldova has not been able to fully benefit from foreign trade opportunities.
- 3. Reducing the economic distance to large regional markets and reaping the benefits of openness is key to overcoming Moldova's structural constraints and spurring export-led growth. Recognizing this challenge, Moldova's national development strategy ("Moldova 2020") aims to move from "a remittance- and consumption-driven model of growth to an export-driven model in order to reduce the economy's vulnerabilities and spur job creation." The expansion of exports of goods and services, at the center of the new development model, will require attracting foreign investment to facilitate participation in regional value chains, and encouraging productivity upgrading and innovation, so as to enhance efficiency and competitiveness. Signing and implementation of the Deep and Comprehensive Free Trade Agreement (DCFTA) with the EU opens new opportunities for local enterprises. More generally, a regulatory framework needs to be improved for Moldovan companies to increase the value they get from goods and services they export to both traditional and new markets.
- 4. The objective of the Moldova Trade Study is to contribute to a better understanding of the factors and challenges underlying Moldova's foreign trade performance and to identify

- policy interventions that can enhance the competitiveness of Moldova's exporting firms and the value added of their exports.
- 5. The report is structured in two parts. The first part consists of two chapters (Notes 1 and 2), and provides an assessment of overall trade competitiveness and trade policy options.
- 6. **Note 1 examines Moldova's trade competitiveness**. It assesses Moldova's export performance over the last 15 years, looking at growth, diversification, sophistication and survival patterns, and benchmarking Moldova's performance against that of comparator countries. It looks at productivity challenges that firms face, and in particular at how different dimensions of the business climate affect their productivity.
- 7. **Note 2 looks carefully at Moldova's different trade policy options.** It examines, specifically, the impact of eight alternative trade policy scenarios (including the DCFTA with the EU, the Customs Union (CU) with Russia, Belarus and Kazakhstan, and others) on GDP growth, trade growth, and inequality. It relies on a dynamic computable general equilibrium (DCGE) model for these purposes.
- 8. The second part of the study consists of two additional notes (Notes 3 and 4), which take sectoral lenses to examine trade competitiveness challenges.
- 9. **Note 3 examines the challenges of the agricultural sector in Moldova**. The sector plays a key role in Moldova's export bundle, and it is also an important employer in the economy. The note draws on existing work on the matter for Moldova and proposes some policy recommendations to increase competitiveness and to comply with EU standards in the face of further integration with that bloc.
- 10. Note 4 looks at the role that free economic zones (FEZ) have had on the Moldovan economy as a tool to accelerate industrialization. The setup of free economic zones has been probably the most important pillar of the country's investment policy. Most of the new manufacturing activity operates from such zones, and four-fifths of their output is actually exported. Yet, there is a lot of heterogeneity in how different economic zones in Moldova operate and perform. Some policy recommendations, drawing on international experience, are presented.
- 11. There are 10 main messages that emerge from this report:
 - Since 2000, exports have been growing, but the growth has been relatively less dynamic than the growth of imports and the gross domestic product. Furthermore, and in particular until 2007, Moldova's export performance has also lagged behind that of other comparable countries in the region in terms of their size, proximity to the EU, and status of their transition economies.
 - Diversification of markets and products accounted for a sizable and increasing portion of export growth. Indeed, Moldova's export product scope increased from 337 varieties in 2003 to 393 in 2013, and the destination scope increased from 61 countries to 103 over the same period. Yet, the product and destination scope of Moldova's export basket lags behind that of comparator countries.
 - Foreign direct investment (FDI), crucial to boost export competitiveness, declined after 2007, and remained low since then. At 3.11 percent of GDP in 2013, it is dwarfed by Albania's 9.7 percent, or of Georgia's 6.15 percent. FDI attraction has been crucial to

increasing the technological content and sophistication of exports, and has the potential to connect the Moldovan economy to dynamic regional and global production networks, and to increase productivity, economy-wide, through technology and knowledge spillovers.

- Some of Moldova's free economic zones have been important in attracting FDI, through tax incentives and streamlined customs procedures. Industrial production (mostly export oriented) and employment have increased in the zones. However, performance has been heterogeneous across the zones and foreign firms operating within them maintain few linkages with domestic economies—crucial elements for productivity spillovers to materialize. Free economic zones can be powerful tools for productive development insofar as their experiences in terms of gains from streamlining customs procedures and other government regulations can be internalized and extrapolated to the rest of the economy.
- Structural business climate reforms are likely more effective to retain FDI and encourage investment and innovation than tax incentives. Our results reveal that lengthy customs and import licensing procedures have an adverse impact on firms' productivity. Each day that companies have to wait to clear customs is associated with a productivity decline of 0.5 percent. This is likely why streamlined customs procedures offered by Moldova's free economic zones are seen by the private sector as one of their main advantages.
- Corruption has an adverse effect on firm performance and productivity, affecting the attractiveness of Moldova as an investment destination. Moldovan firms that allegedly used informal payments and gifts to deal with customs procedures and with the courts had lower productivity levels than their counterparts. Specifically, firms that relied on bribes were between 6 and 7 percent less productive than their counterparts.
- Deepening trade and investment integration is crucial for the country's long-term development prospects. The DCFTA that Moldova and the EU signed and started implementing in 2014 offers Moldova a unique opportunity to reach a more sustainable economic growth path. This is revealed by our simulation results undertaken using the DCGE model. First, the DCFTA scenarios are associated with higher economic growth in Moldova over the next decade, compared with other options. Second, scenarios with higher FDI lead to better economic outcomes compared to scenarios without enhanced inflows.
- Trade facilitation appears to be the most promising vehicle for economic development, compared to all other factors under the DCFTA. According to the model, trade facilitation would explain almost two-thirds of the potential higher growth obtained under the full implementation of the DCFTA with the EU. Of course, if the country's trade facilitation efforts fell short of modelled ambitious reduction in trading cost, only a fraction of this potential would materialize. It is also worth mentioning that while the pay offs for the trade facilitation efforts are somehow influenced by the increased market access that the DCFTA represents, unilateral reforms conducive to trade facilitation are likely to have substantial pay offs, independently of the decision of Moldova to join the DCFTA with the EU.
- Moldova's growth could slow down if it joined the CU, but higher FDI inflows could compensate for this negative effect. According to the model, the most negative effect in case

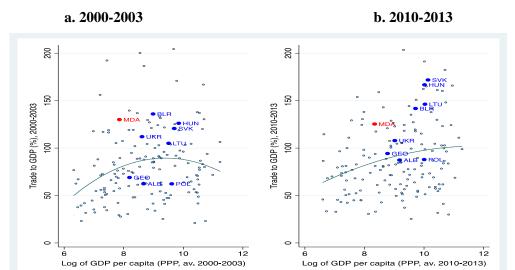
Moldova joins the CU would be from the EU setting the MFN rate on all imports from Moldova. The net effect of the CU may become positive if Moldova processes the needed reforms to attract higher FDI flows.

- Key to maximizing gains from the DCFTA with the EU is to enhance Moldova's agricultural competitiveness to ensure access of its agro-food products to the EU market. This includes:
 - > enhancing production processes by using fertilizers and pesticides appropriately;
 - ➤ increasing quality through improving harvest and post-harvest processes and infrastructure;
 - > supporting producers' learning and understanding of product characteristics demanded in end markets; and
 - > supporting organic farming as a way to differentiate products and compete in high-value-added market segments.
- 12. **This overview combines the main messages of those four notes.** The rest of the note is structured as follows: Section 2 summarizes the analysis of Moldova's export performance. Section 3 focuses on constraints on Moldova's competitiveness. In Section 4, we consider alternative trade policy scenarios and their implications for the Moldovan economy. Section 5 synthetizes existing analysis on constraints for agriculture competitiveness and exports, while Section 6 evaluates the performance of free economic zones in Moldova. In the final section, we present policy recommendations.

2. Analysis of Export Performance

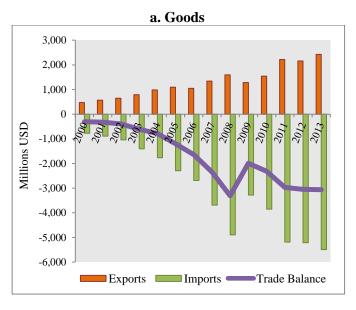
- 13. **Moldova is highly integrated into the global marketplace.** The country's trade-to-GDP ratio of 125 percent is substantially higher than its regional comparators' (Figure 3). In contrast to its peers, however, Moldova has failed to deepen its relative trade openness over the last decade. While trade expanded substantially, from US\$1,250 million in 2000 to US\$7,800 million in 2013, income per capita grew even more at an average rate of 5.8 percent.
- 14. The recent expansion of merchandise trade in Moldova has been mainly driven by imports. Imports experienced a six-fold increase between 2000 and 2013, growing at an average annual rate of 16 percent. Exports have been less dynamic, growing at a slower average annual rate of 13 percent and experiencing a 20 percent decrease in 2009 (Figure 4a). Although export growth resumed in 2013, the trade balance remained negative during the 2000-13 period. Moldova's export performance compares poorly with regional peers. Re-exports, on the other hand, have been relatively more dynamic than exports, and while the domestic manufacturing value added embedded in them is zero, re-exports have been associated with increased exports of Moldovan transport services.
- 15. **Trade in services has achieved greater dynamism than trade in goods.** Indeed, during the last decade, exports of services have grown faster than imports (Figure 4b). While the services export growth averaged 16.5 percent per year, imports grew at an annual average 13.9 percent.

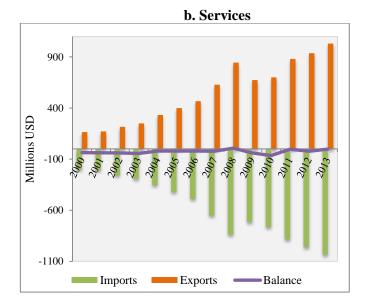
Figure 3. Openness to Trade, 2000-2013



Source: Authors' calculations using data from WDI and UN Comtrade.

Figure 4. Evolution of Trade, 2000-2013





Note: The value of exports in panel (a) includes re-exports.

Source: Authors' calculations based on data from UN Comtrade.

16. FDI inflows to Moldova increased tenfold between 2002 and 2007, reaching 12 percent of GDP in 2007, but decreased sharply after the global crisis and remained low since then. The share of FDI in GDP in 2013, at 3.11 percent, is still higher than average for countries at a similar level of development, but substantially lower than exhibited by other countries in the region, particularly those with trade agreements with the EU.

- 17. The composition of Moldova's main export basket has shifted in the past decade, with exports of machinery and fruits and vegetables increasing in importance at the expense of foodstuffs and textiles. Wine, the top export product in 2003, fell to the fourth place in 2013, in part due to trade restrictions imposed by Russia, Moldova's main wine importer, and also to the dynamism of other export products. Indeed, in 2013, the main export products were coaxial cables and other electric conductors, mainly produced by a handful of foreign firms (Table 1).
- 18. The destination structure of the export basket has also changed recently, as Moldova has progressively decreased its traditional export dependence on the Russian market. The share of Moldovan exports going to Russia decreased from 39.5 percent in 2003 to 14 percent in 2013 (Table 2). Russia is now the second main destination after Romania, which in 2013 received 19 percent of Moldovan exports. Indeed, exports to Romania tripled between 2010 and 2013. In recent years, new markets, such as China, Egypt, and Turkey, have gained salience among top export destinations.

Table 1. Top 10 Exported Products

	Tubic 1	• 10p 10	Emporteurrounces					
2003			2013					
Product	Exports Share (Millions USD) (%)		Product	Exports (Millions USD)	Share (%)			
Wine (in containers of < 2 liters)	162.7	21	Coaxial cable & other electric parts	150.6	9.30			
Other grapes	34.3	4.45	Sunflower seeds	136.1	8.40			
Spirits	25.02	3.23	Shelled walnuts	85.9	5.31			
Apples	22.2	2.86	Wine (in containers of < 2 liters)	81.01	5.00			
Shelled walnuts	21.6	2.78	Wheat seed, white, other	64.9	4.01			
Bovine hides & skins (whole)	17.2	2.24	Other wine	62.0	3.83			
Apple juice	16.98	2.19	Spirits	58.6	3.62			
Other bovine hides & skins	16.84	2.17	Parts of seats	55.7	3.44			
Sunflower seeds/safflower oil	16.4	2.11	Apple juice	48.8	3.01			
Boneless bovine meat	13.5	1.73	Apples	47.01	2.9			
Total Exports	775.9	100	Total Exports	1,619.8	100			

Source: Authors' calculations based on data from UN Comtrade.

- 19. A steady growth in product diversification underlies the change in composition of the export basket. Moldova has diversified its export product base, with the number of varieties exported growing from 274 in 2000 to 393 in 2013. Still, the export product scope remains low compared with that of other countries in the region (see Table 3).
- 20. **Moldova has also diversified its export destination structure.** Export destinations grew from 63 to 103 from 2003-13, rising above the destination scope of countries such as Albania or Georgia (see Table 3). In addition, Moldova significantly decreased its reliance on markets in the Commonwealth of Independent States (CIS), and shifted toward European countries. There is scope for further diversification and for expanding trade ties with more distant markets.

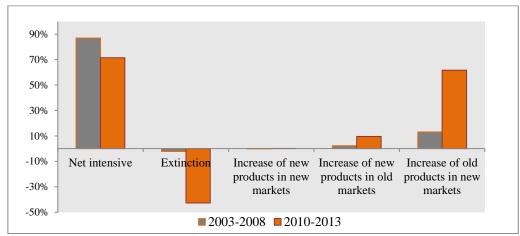
Table 2. Top 10 Destinations

200	3	2008		2013	
Market	Share (%)	Market	Share (%)	Market	Share (%)
Russian		Russian			
Federation	39.5	Federation	21.7	Romania	19.2
Romania	11.4	Romania	14.9	Russian Federation	14.3
Italy	10.5	Ukraine	11.5	Ukraine	7.3
Germany	7.1	Belarus	9.2	Italy	7.0
Ukraine	7.1	Poland	4.3	Turkey	6.2
Belarus	5.2	Italy	4.0	Germany	5.8
United States	4.3	Switzerland	3.9	Belarus	5.3
Austria	1.3	Germany	3.4	Poland	4.7
Kazakhstan	1.2	Kazakhstan	3.0	United Kingdom	4.2
France	1.2	United Kingdom	2.3	Switzerland	2.8

Source: Authors' calculations based on data from UN Comtrade.

21. The observed diversification contributed substantially to export growth. As Figure 5 shows, in 2005-08, 86 percent of total export growth was explained by more sales of the same products to the same destinations, while a sizable 13 percent growth resulted from diversification along the market destination, that is, more exports of the same products to new markets. In 2010-13, the importance of diversification along the market dimension experienced a marked increase, accounting for over 60 percent of export growth. The new products introduced accounted for a sizeable 9 percent export growth in recent years. This suggests that the new markets reached, and the new products introduced are far from being negligible in export dynamics.

Figure 5. Decomposition of Export Growth along Extensive and Intensive Margins



Source: Authors' calculations based on data from UN Comtrade.

22. Moldova's export basket has experienced a quality upgrade between 2003 and 2013. Most of the country's traditional exports, including wine in bottles, apple juice, spirits, and walnuts, have experienced increases in their relative quality. Some of Moldova's new top products, such

- as coaxial cables and parts of seats, rank high in terms of their relative quality. However, when compared with peers, the quality level of Moldova's exports, as measured by the prices they fetch in international markets, is low.
- 23. The sophistication of Moldova's exports has not changed substantially in the last 10 years. The evolution of this indicator is important because as argued by Hausmann and Rodrik, the level of sophistication of exports is a predictor of a country's future growth. Moldova's EXPY increased between 2000 and 2008, more rapidly between 2003 and 2006, in part reflecting the increased significance of apples and wheat, as the wine sector declined. The EXPY fell after 2009 and, while experiencing a moderate increase in 2013, it remains below its 2000 level. Indeed, the country's export sophistication has lagged behind the country's growth during the last decade. It is also low when compared with other countries in the region (see Table 3).
- 24. Moldova's export survival rates are significantly below those of comparators. The probability of a Moldovan export relationship surviving past the first year is slightly above 40 percent (Figure 6a). The chance of surviving past the second year is significantly smaller (26 percent). In comparison, benchmark countries exhibit a stronger performance in terms of export survival. Poland's one-year survival rate, for example, is almost 20 percentage points above Moldova's. Moldova only outperforms Georgia—another country with serious challenges to consolidate export flows in international markets.
- 25. The chances of survival of export relationships vary according to destination and export product. Exports to preferential trade partners Russia, Kazakhstan, and Belarus have the highest survival rates (Figure 6b). Exports of foodstuffs, vegetables, and other low-technology products have the highest survival rates.

Figure 6. Export Relationships Survival Rates (2000-2013) a. Moldova vs. comparators b. By destination **Export Relationships** Export Relationships by Destination Survival Rate 2000-2013 Survival Rate 2000-2013 Probability 0.25 0.50 0.75 1.00 8 **ECA** EU27 LAC MENA **NEC** RUS-BLR_KAZ SSA SA 0.75 Probability 0.50 0.00 15 10 Years Active 0.25 BLR ALB **GEO** HUN LTU MDA 0.00 POL SVK 10 15 **UKR** Years Active

Source: Authors' calculations based on data from UN Comtrade.

Table 3: Summary Indicators on Trade Competitiveness – Moldova & Comparators

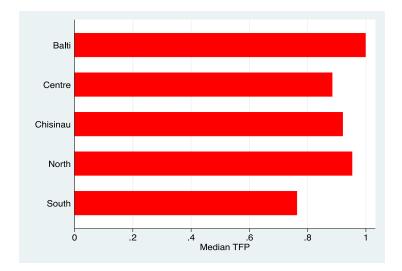
	M	DA	AI	LB	BI	LR.	GI	EO	н	JN	Lī	ſŪ	SV	'K	UK	R
	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013
Exports	774.6	1,619.8	447.2	2,330.0	9,615.8	35,700.0	460.9	1,734.4	42,300.0	105,000	7,146.4	32,000.0	21,900	85,200	22,800	62,700
Exports/GDP	53.5	43.3	20.6	34.8	65.2	60.3	31.8	56.6	56.6	88.8	47.4	84.1	62.1	93.0	57.8	43.0
Imports	1,399	5,487	1,864	4,902	11,558	43,023	1,141	8,023	47,808	100,111	9,803	34,813	22,523	81,735	23,020	76,787
Imports/GDP Services	87.2	80.6	45.9	52.9	69.0	63.5	46.4	57.6	60.6	81.2	54.4	82.8	64.0	88.4	55.2	52.1
exports	250.0	1,030.0	720.0	2,202.5	1,499.9	6,948.7	458.8	2,969.5	9,204.5	21,382.5	1,873.9	7,123.3	3,286.0	7,434.8	5,214.0	20,132
Trade/GDP	140.7	126.0	66.5	87.5	134.1	123.8	78.3	102.4	117.2	169.9	108.1	166.9	126.1	181.4	112.9	95.1
FDI Inflows	73.75	231.31	178.0	1,225.5	171.8	2,232.7	334.6	1,009.7	2,137.4	3,091.1	180.4	531.1	2,975.7	591.0	1,424	3,771
FDI/GDP	3.72	3.11	3.13	9.69	0.96	3.09	8.38	6.15	2.56	2.38	0.96	1.16	8.94	0.62	2.84	2.05
N. of exports	337	393	247	505	1,674	2,009	167	351	2,558	2,910	1,621	2,912	2,253	2,802	1,949	2,300
N. of markets	61	103	40	87	125	154	70	98	174	187	134	175	160	179	163	181
HHI products	0.05	0.03	0.08	0.09	0.05	0.09	0.04	0.05	0.02	0.01	0.03	0.05	0.03	0.01	0.01	0.01
HHI markets Share top 5	0.18	0.07	0.57	0.23	0.24	0.22	0.09	0.05	0.13	0.08	0.06	0.07	0.13	0.08	0.05	0.07
products Share top 5	0.34	0.32	0.45	0.46	0.33	0.42	0.38	0.43	0.22	0.17	0.27	0.29	0.28	0.25	0.18	0.21
markets Export quality	0.75	0.54	0.95	0.75	0.71	0.74	0.62	0.46	0.58	0.46	0.48	0.50	0.64	0.55	0.39	0.43
index*	0.79	0.80	0.85	0.89	0.88	0.94	0.77	0.79	0.94	0.96	0.90	0.93	0.95	0.98	0.82	0.87
EXPY	15,893	15,677.4	13,205.2	16,735.2	22,373.3	22,862.1	17,116.5	15,344.7	24,290.7	25,154.6	20,260.4	22,715.7	24,710.8	24,881.1	21,032.5	19,547
Survival rate		0.42		0.39		0.51		0.37		0.55		0.54		0.55		0.50
DB rank Trading across		82		108		57		14		58		24		35		112
borders rank		151		93		146		31		71		21		70		153
Time to export		23		19		15		9		17		10		16		29
Time to import		29		18		30.0		10		19		9		16		28
Cost to export		1,545.0		745.0		1,460.0		1,355.0		885.0		750.0		1,500.0		1,930.0
Cost to import		1,870.0		730.0		2,265.0		1,595.0		845.0		800.0		1,480.0		2,505.0
LPI score		2.65		2.77		2.64		2.51		3.46		3.18		3.25		2.98

Source: Authors' calculations based on data from UN Comtrade.

3. Constraints on Moldova's Export Competitiveness

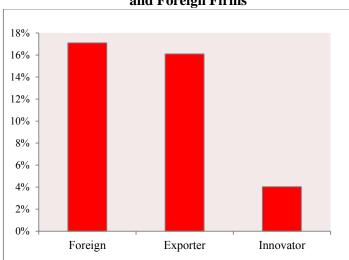
- 26. **Firm productivity is key to export competitiveness.** In Moldova, the environment in which firms operate seems to affect their ability to upgrade and compete in the global marketplace. We focused on supply-side considerations, such as access to finance, the quality of backbone services, and the business environment (in particular, government regulations affecting trade and governance and institutional quality). We assessed Moldova's performance in these areas and investigated their effect on a firm's productivity.¹
- 27. Within Moldova, productivity levels vary across regions, sectors, and types of firms. Firms in the northern city of Balti, the third largest in the country after Chisinau and Tiraspol, exhibit the highest median levels of total factor productivity (TFP), followed by firms in other cities within the northern region. By contrast, firms in the South appear to be the least productive (Figure 7). In addition, firms that are export-oriented, foreign-owned, and that innovate show productivity premia when compared to other firms of similar size, age, and sector of operation (Figure 8). Productivity is also heterogeneous across sectors. Manufacturing firms appear to be less productive than firms in the services sectors. The median level of TFP for manufacturing is lower than the median productivity level for construction, retail, and other services but higher than in transport services. However, manufacturing firms exhibit higher levels of productivity than companies in the transport sector.

Figure 7. Median Productivity by Region



Source: Authors' calculations based on data from BEEPs.

Figure 8. Productivity Premium of Exporters, Innovators, and Foreign Firms



Note: Productivity premia for exporters show the percentage by which the productivity of exporters (innovators, foreign firms) is higher than that of non-exporters (non-innovators, domestic firms) are expressed as percentage differences.

¹ For these purposes, we use firm-level data from the World Bank/EBRD Business Environment and Enterprise Performance Survey (BEEPS).

3.1 Linking Productivity and Quality of Backbone Services

- 28. In Moldova, firms perceive access to finance as the main obstacle to their operations. Figure 9 shows the percentage of firms that perceive access to finance, and the quality of electricity, transport, and telecommunications, as at least a moderate obstacle. While more than 40 percent of respondents said access to finance was at least a moderate obstacle, 30 percent said poor quality of electricity was a problem. A lower, but still considerable, proportion of firms identified transport and telecommunications as a problem.
- 29. Moldova's competitiveness remains hindered by a series of supply-side obstacles, including poor factors conditions, weak infrastructure and backbone services, and an inefficient business environment. In line with responders' perceptions, Moldovan firms confront significantly high cost and limited access to external funds. Indeed, almost 70 percent of all investments in fixed assets are financed with internal funds. High reliance on internal funds and high collateral requirements are associated with lower TFP levels. More precisely, a 1 percent increase in the required collateral decreases productivity by 0.5 percent.
- 30. Weak electricity and water services also undermine productivity. Power outages, irrespective of their duration, are associated with lower productivity levels. All else equal, the productivity of those firms that reportedly experienced power outages in the year of the survey was almost 3 percent lower than the productivity of those that did not suffer interruptions in their power supplies. In addition, the longer a firm has to wait to establish a water connection in a new facility, the greater its productivity loss. In fact, for each additional day that a firm has to wait to get water supply, productivity falls by 0.11 percent.

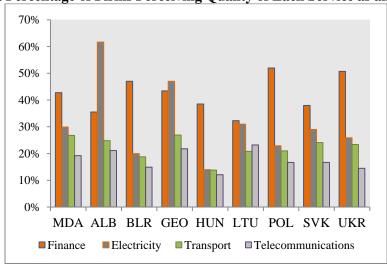


Figure 9. Percentage of Firms Perceiving Quality of Each Service as an Obstacle

Source: Authors' calculations based on data from BEEPs.

3.2 Governance and Institutional Quality

31. Moldova's customs procedures and inadequate trade logistics are a constraint on productivity and competitiveness. Several recent surveys of importers and exporters (including potential exporters) yielded strong indications that logistics and customs are considered key obstacles and constraints to growth in Moldova's foreign trade, especially for exports. Anecdotal evidence from discussions with firms in Chisinau confirmed that logistics

is a problem for their operations. Our findings confirm that lengthy customs and import licensing procedures have an adverse impact on firms' productivity. Each day that companies have to wait to clear customs is associated with a productivity decline of 0.5 percent. This is likely why streamlined customs procedures offered by Moldova's free economic zones are seen as one of their main advantages.

32. There is negative premium—or "bribe tax"—associated with corruption. Corruption has an adverse effect on firm performance and productivity. Moldovan firms that used informal payments and gifts to deal with customs procedures and with the courts had lower productivity levels than their counterparts. Specifically, firms that relied on bribes were between 6 and 7 percent less productive than their counterparts.

4. Modeling of Trade Policy Options for Moldova

-1400 -1600

- 33. In the decade between 2005 and 2014, the EU became the main trading partner of Moldova. The total volume of trade in goods between Moldova and the EU expanded 160 percent, from about US\$1.5 billion in 2005 to US\$3.8 billion in 2014, making the EU the most important trading partner of Moldova.
- 34. Moldova's export basket to the EU has been changing over the last 10 years. Compared to 2005, the top 10 exports to the EU included five new product categories in 2013. The most important change has been the substitution of raw hides and skins (main export in 2005) by equipment for distributing electricity, which includes mainly coaxial electric cables. In 2013, this product category alone accounted for 19 percent of total Moldovan exports to the EU. Another noticeable change has been the emergence of alcoholic beverages (primarily, grapes wines) in the top 10 exports to the EU. Notwithstanding the growth in trade volumes, the trade deficit with the EU increased, indicating the still low competitiveness of Moldovan producers in the EU market. The trade deficit between Moldova and the EU more than doubled over a decade to US\$1.3 billion in 2014, much higher compared with Moldova's trade balances with Russia and other CIS countries (Figure 10).

-UE-28 —CU RBK —Other CIS —Turkey —Other

200
0
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

-200
-400
-600
-800
-1200

Figure 10. Trade Balance with Moldova's Most Important Trading Partners, million USD

Source: Authors' calculations based on UN COMTRADE database.

- 35. The expansion of trade with the EU was in fact stimulated through a series of trade policy actions, most recently, by signing an Association Agreement (AA). In 2006, the EU granted preferential treatment for Moldovan exports through the Generalized System of Preferences (GSP), which was extended soon after to GSP "plus" (2007), and then replaced by the more comprehensive Autonomous Trade Preferences (2008). On June 27, 2014, Moldova and the EU signed the AA. The AA is of a "new generation" type, aiming to set up an all-encompassing framework for bilateral relations. As part of the AA, the two parties agreed to establish a DCFTA over a period of 10 years. The free trade area is "deep and comprehensive" since it encompasses a far-reaching regulatory approximation (on the Moldovan side) and liberalization of trade in services, in compliance with WTO rules.
- 36. The DCFTA will remove import duties for most goods traded between the EU and Moldova and will support regulatory harmonization between Moldova and the EU. The DCFTA will also provide for broad mutual access to trade in services. It includes provisions on commercial law, to allow the EU and Moldovan companies to set up subsidiaries on a non-discriminatory basis. An important part of the DCFTA is aligning Moldovan trade-related laws to selected EU legislative acts. Moldova shall take the necessary measures to gradually achieve conformity with the EU's technical regulations and standards.
- 37. There are some exceptions to the elimination of customs duties by the EU. Duty-free quotas apply to nine product positions. This may affect apples and grapes, in particular. Anticircumvention mechanisms are introduced as a precautionary measure for 14 categories of agricultural and processed goods exported from Moldova to the EU. Fixed-rate import duties will remain in place on products subject to the EU's Entry Price System (EPS). While, according to the AA, the ad valorem tariff for 20 positions will be cut, the fixed component of the import duty will remain in place, effectively raising the cost of Moldovan exports up to the level of the minimal entry price established for the products falling under the EPS.
- 38. Moldova agreed to eliminate all its customs duties. However, a number of transition periods and protectionist measures apply in its case. Elimination of some duties will take place gradually, while others are subject to duty-free quotas. As of the AA's entry into force, many of the EU products imported by Moldova were already duty-free. Almost 46 percent of the goods imported from the EU were already covered by zero percent MFN import duty. For another 47 percent of the traded goods, there was an immediate reduction of tariffs as of the date of entry into force of the AA. Aside from the goods covered by tariff–free quotas, Jan.1, 2024, is the latest date when full liberalization of EU products imported by Moldova needs to be achieved.

Box 1: Assessing the Impact of Different Trade Policy Options Using a DCGE Model

The impact assessment of the DCFTA and of other trade policy options that Moldova faces was conducted using a DCGE Model. The model is an extended and adjusted version of the standard model described by Lofgren et al (2002). The model assumes that economic agents have only adaptive expectations, i.e., no inter-temporal optimization decisions are made, which allows the model to be solved as a sequence of equilibriums in time. Changes in the factors endowment (capital as endogenous variable, labor as exogenous one), total population and in a number of trade related parameters (customs duties, and regional export and import prices) are determining the

21

² Lofgren, Hans et al., "A Standard Computable General Equilibrium (CGE) Model in GAMS". IFPRI, 2002. Downloadable: http://www.ifpri.org/pubs/microcom/5/mc5.pdf.

model's time-dynamics. Capital endowment updates based on a function that considers the sector-specific returns on capital investments and the previous shares of the sector in the total distributed investment capital.

This model is calibrated on the basis of Moldova's Social Accounting Matrix (SAM) for 2011. The Moldova's SAM has a high level of disaggregation, including 14 types of economic activities, 35 produced goods and services, three types of transaction costs, six types of factors of production, households disaggregated by quintiles and areas of residence, government, five types of taxes, including the custom duties disaggregated by geographical region and by goods, and six geographical regions with which Moldova conducts its international trade.³

To allow for simulation of all scenarios of interest, the model includes six trading regions. The trade regions that SAM operates with are the following: 1) Russia; 2) Belarus and Kazakhstan; 3) Other CIS countries; 4) EU28; 5) Turkey and 6) Rest of the World. Isolating Russia from the other two members of the CU—Belarus and Kazakhstan—is necessary to simulate the impact of its trade restrictions on imports from Moldova. The trade restrictions has not been embraced by Belarus and Kazakhstan. Inclusion of Turkey as a distinct trade region has been determined by the fact that Moldova and Turkey negotiated and signed a FTA, which was the EU's precondition for the DCFTA with Moldova (Turkey is in the CU with the EU).

Eight alternative trade policy scenarios are considered. While trade parameters vary across all these scenarios, a number of core parameters are identical. The same changes in labor and in population have been imposed exogenously in all scenarios, based on the observed dynamics over the recent decade. To reflect the high share of informal activity in the Moldovan economy, self-employment in the agricultural sector and self-employment in other sectors have been introduced in the model as distinct factors of production. Due to migration and a decline in fertility rates, the labor endowment is assumed to continue its decade-long trend and will decline over the next decade by 0.5 percent annually, while self-employment will decline by 1.8 percent annually in all sectors. The rural population will decline by 0.2 percent, while the urban one will decline by 0.1 percent on an annual basis. The productive capital depreciates at a rate of 5.0 percent, which corresponds to the observed statistical data in the recent five years. The TFP is projected to stay unchanged throughout the period.

Source: Authors' elaboration.

- 39. What is the expected impact of this DCFTA with the EU? How does it fare against alternative options that Moldovan authorities currently have? A DCGE model was used to assess the impact of different trade policy option (see Box 1 for details, and Note 2 for a more in-depth discussion).
- 40. Six scenarios have been simulated using the DCGE to reflect the variety of hypothetical trade policy options for Moldova.
 - 2013 Policy Baseline. This scenario assumes that there is no DCFTA, FTA with Turkey, accession of Moldova to a CU with Russia, Belarus, and Kazakhstan (RBK) nor Russian trade restrictions. The EU maintains the unilateral trade preferences it offered to Moldova (Autonomous Trade Preferences). Under this scenario, real GDP is expected to grow 59 percent cumulatively over the period 2014-23. This corresponds to an average annual GDP growth rate of 4.8 percent, which reflects the average growth rate of the Moldovan GDP in the period 2004-13.

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³ Moldova's data available for the calibration of the CGE model are of decent quality and reliable. One important feature is that the data do not cover production and consumption in the Transnistrian region and only partially cover the trade of that region. Because of this, the System of National Accounts includes some sectors (such as metallurgy, footwear and others) for which the reported domestic production (that does not include Transnistria) is smaller than the reported volume of exports (that includes Transnistria). Another data limitation is the lack of sufficient disaggregation of the agricultural sector in the SNA. Because of this, and considering the EU–Moldova agreed schedule of tariff concessions, additional research and estimates were necessary to disaggregate the sector into a more detailed structure.

- DCFTA with the EU (DCFTA). This scenario assumes the following: Moldova reduces tariffs on goods imported from the EU and Turkey, removes barriers on services imports from the EU, and implements trade facilitation reforms; Moldovan food manufacturing companies adopt sanitary and phytosanitary (SPS) standards and benefit from higher price margins by moving up along the value chain in international markets; the EU removes import tariffs on goods and reduces barriers on service imports from Moldova; Turkey implements its part of the free trade agreement with Moldova; Russia introduces trade sanctions against Moldovan imports that dissipate in three years. Within this scenario, separate effects of the parameters mentioned above have been modeled.
- *DCFTA with higher FDI inflows (DCFTA+FDI)*. The third scenario is identical to the previous one for all trade parameters. An additional feature is that, following improvements in the business climate triggered by the DCFTA, inflows of FDI into the Moldovan economy start growing in 2017 (improvements need time to materialize and get observed by investors) at a rate of 10 percent annually.⁴

Box 2: Association Agreements with the EU and FDI Inflows

The "EU-factor" played the key role in this growth of FDI, as suggested by existing literature. This figure is a conservative one, as the historical evidence from the EU association of the Central European countries shows much higher rates of growth of FDI following association with the EU. The simple annual average growth rate of FDI in the CEECs between 1991 (when the first Association Agreements between the EU and CEECs were signed) and 2004 exceeds 50 percent. The literature argues that the accession process had first the largest impact on capital flows and subsequently on the flow of goods. The biggest beneficiaries were those CEECs countries that implemented more radical liberal reforms. Combined with preferential access to EU markets, these reforms have attracted FDI. The EU provided an outlet first for CEECs' unskilled labor-intensive products and then for skilled labor-intensive and technology-based products. The EU has also been the source of knowledge-intensive imports contributing to industrial realignment in CEECs. The prospect of accession and an unfettered access to EU markets since 1998 has encouraged more multinational corporations to relocate their production to the CEECs.

Source: Authors' elaboration.

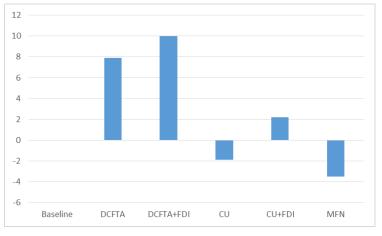
• Moldova joins the Customs Union of Russia, Belarus, and Kazakhstan. In this scenario, Moldova joins the Customs Union of Russia, Belarus, and Kazakhstan. On the Moldovan side, this implies denouncing the DCFTA, raising its customs duties for the non-CU countries to the MFN level of the CU countries and reducing them almost to zero for the CU members ("almost" reflects the fact that some goods traded among the current CU members are nonetheless subject to duties). Under this scenario, Russia does not impose trade restrictions and offers Moldova a 30 percent bonus in natural gas prices. This scenario also assumes that the EU would abolish its unilateral trade preferences offered to Moldova and raise duties on imports from Moldova up to the EU MFN rate. The impact is modeled through changes in exporters' prices. The scenario assumes no changes in the trade policy of other CIS members as long as Moldova respects the multilateral FTA in the CIS area. However, because the CU's applied MFN rate is higher than the bound rate Moldova committed to as a member of the World Trade Organization, Turkey and the rest of the

⁴ The growth of FDI has been modeled through corresponding changes in the volume of capital transfers of the rest of the world to Moldovan enterprises, which are included as separate institutions in the Moldova DCGE model.

⁵ The Customs Union of Russia, Belarus, and Kazakhstan was a basis for establishment of the Eurasian Economic Union (EEU) that came into force on January 1, 2015. During 2015, Armenia and Kyrgyzstan also joined the EEU.

- world would be entitled to increase their tariffs on imports from Moldova by a rate equal to the difference between Moldova's final bound rate and the CU RBK applied MFN rate. Similar to the DCFTA scenario, separate effects of the parameters mentioned above have been modeled within this scenario.
- Moldova joins CU with higher FDI inflows. This scenario assumes that Moldova is able to improve the business climate without the DCFTA in place and this improvement is followed by an annual 10 percent growth of the FDI starting with 2017. This scenario has been introduced to compare with the other two scenarios involving FDI. All other changes in trade parameters for Moldova and its trade partners are those from the previous scenario.
- Abolishing FTAs and imposing MFN rate to all trading partners. In the final scenario, Moldova takes no sides, abolishes all its FTAs and imposes MFN duty rates against all trading partners. As an important note, the MFN duty rate has been calculated within the model as the maximum regional rate imposed for the given aggregated group of products. It is assumed that while imposing the MFN for all partners, Moldova respects its WTO commitments regarding the final bound rates. Therefore, neither Turkey nor the rest of the world have grounds for retaliation. Russia does not impose trade restrictions on any Moldovan goods (because Moldova does not integrate with the EU), but it imposes the MFN rate and so do Belarus, Kazakhstan, and all other members of the CIS because Moldova effectively denounces the multilateral free trade agreement in the CIS area. Under this scenario, the EU would withdraw the Autonomous Trade Preferences it offers to Moldova.
- 41. Increased free trade with the EU and higher FDI inflows improve economic outcomes the most. Figure 11 shows the impact of each of the scenarios on GDP relative to the baseline and leads to two conclusions. First, the DCFTA scenarios are associated with higher economic growth in Moldova over the next decade, compared with the CU, MFN and the 2013 policy baseline. Second, scenarios with higher FDI—both the DCFTA and the CU—lead to better economic outcomes compared to scenarios without enhanced inflows.

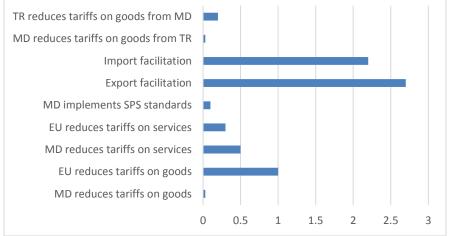
Figure 11. GDP Impact of Trade Policy Options Relative to Baseline, Average Growth over 2015-2024, in p.p.



Source: Authors' calculations.

- 42. **DCFTA** and **DCFTA** plus **FDI** seem to be the best development scenarios for Moldova. A fully implemented DCFTA coupled with improvements in Moldova's attractiveness for foreign capital, will result in a total GDP gain amounting to 10 percentage points annually compared to the baseline. Without higher FDI, the annual growth benefit will be still a high 7.9 percentage points, if the DCFTA is *fully* implemented. Of course, if reforms that are part of the DCFTA are only partially implemented, gains are expected to be lower.
- 43. Trade facilitation is the most promising vehicle for economic development, compared to all other factors under the DCFTA. In total, according to the model, trade facilitation would explain almost two-thirds (or 4.9 percentage points of the total 7.9 percentage points) of potential higher growth. The simulated one-third reduction in trade-related transaction costs would provide 2.7 percentage point gains to the GDP in the case of export facilitation and 2.2 percentage points in case of imports facilitation (see Figure 12). Notice that trade facilitation reforms could well be implemented unilaterally by Moldova, independently of the decision of Moldova to join the DCFTA. While this was not formally modelled, these reforms are likely to positively affect growth.

Figure 12. Decomposition of DCFTA Gains, Average Growth over 2015-2024, in p.p.



Note: Gains relate to extra GDP growth relative to the baseline scenario. TR stands for Turkey

Source: Authors' calculations.

44. Moldova risks losing almost 2 percentage points of growth if it joins the CU, but higher FDI inflows could compensate this negative effect. As shown in Figure 13, joining the CU would involve many changes in Moldova's trade conditions. The results show that the EU abolishing its ATP and setting the MFN rate on imports from Moldova would have the most negative effect. The amount of the gas price bonus (30 percent discount) would be too small to compensate for the associated economic losses. The effect of the CU may become positive—2.2 percentage points on average—if Moldova attracts higher FDI.

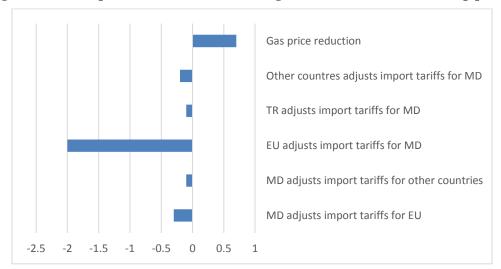


Figure 13. Decomposition of CU Gains, Average Growth over 2015-2024, in p.p.

Note: Gains relate to extra GDP growth relative to the baseline scenario.

Source: Authors' calculations.

45. The least favorable scenario for Moldova would be adoption of the MFN against all partners. In this scenario, the GDP would decline in real terms (i.e. not only against the baseline path) in the first three years after imposing this policy, and then it would start growing very slowly. Despite the initial shock deviating the economy (significantly) from the optimal trajectory, capital would continue to accumulate, while foreign trade would continue, even with smaller profit margins for exporters and lower utility for consumers. Nonetheless, under this scenario, there is a remarkable divergence of the growth path even from the baseline, meaning that in time the conditions would get only worse.

5. Enhancing Moldova's Agriculture Competitiveness

- 46. **The agriculture and agri-food sector has been a substantial component of Moldova's export basket.** Fruits, vegetables, and nuts comprised 33 percent of Moldova's exports from 2011-13. Exports have grown significantly over the past 10 years, and food products represent the second-largest category of Moldovan exports, with a 26 percent share and average value of US\$370 million during 2011-13, up from US\$238 million in 2000-01. Agriculture and agrifood products are also among the priorities for Moldovan exports and for Moldovan authorities to further support the development of small and medium enterprises.
- 47. Enhancing Moldova's agricultural competitiveness is a key element in improving its access for Moldovan agro-food products to the EU market and capitalizing on the potential benefits from the AA (including the DCFTA). The challenge of strengthening competitiveness and reorienting a substantial portion of Moldova's agro-food exports towards the EU appears today more pressing than ever in view of increasing uncertainties in its traditional CIS markets. At the same time, it is realistic to expect that many farmers will

continue to produce for non-EU markets and that agriculture will retain its role as a source of income for less prosperous households.⁶

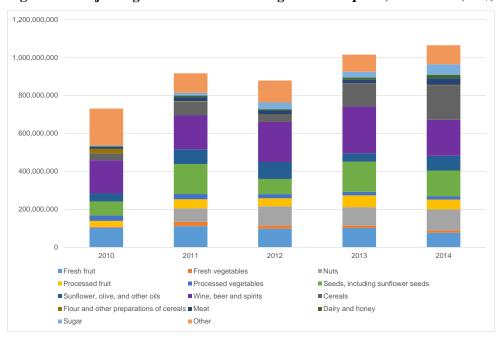


Figure 14. Major Segments of Moldova's Agri-Food Exports, 2010-2014 (US\$)

Source: Elaborated by the author based on data from UN Comtrade.

- 48. The competitiveness and productivity of the sector remains low when compared with other producers around the world. Moldovan apples, table grapes, and plums fetch among the lowest unit prices of exporters in the world, and have done so in both 2003 and 2012. Most of Moldova's produce is exported to lower-value markets (e.g. with lower unit values) and competes at the lower end of these markets. A small proportion of produce is exported to higher-value markets, and mostly competes at the lower end in these markets as well. Yields for fruits and vegetables in the 2007-12 period show mixed performance: yields of apples, apricots, walnuts, and vegetables are well below new EU member state comparators, and yields of wine and table grapes are comparable to some new EU member states but lower than CIS neighbors.
- 49. **However, there are some signs of opportunity.** There are approximately 115 larger farms that have the scale and ability to compete in high value markets, and commercial agriculture enterprises have yields nearly 1.5 times the yields of small farmer/peasant households. Moldova has been successfully competing in some niche markets: it is the second-largest supplier of walnuts to the EU (after the United States) and has been able to compete in the middle range of some markets for apples (United Kingdom and Bulgaria). Its exports of organic produce are growing.
- 50. In order for significant exports to the EU to become reality, Moldova's farmers and exporters will need to adhere to high product quality standards and traceability, improve the quality of packaging, and in some cases, adjust the grading specifications. Achieving

⁶ Briefing Book from Development Partners of Moldova (http://www.worldbank.org/en/country/moldova/publication/briefing-book)

this requires actions to improve practices during growing and harvest; improve post-harvest handling and infrastructure; and improve the flow of market information and requirements to producers. These improvements will not only better position Moldova to compete in the EU, but also in more demanding markets (such as supermarket chains) in the CIS and in other regions (for instance, some agri-food producers have begun to explore markets in the Middle East). This will allow Moldovan producers to diversify markets in order to mitigate market and price vulnerabilities that have affected them to date—including bans on exports to Russia and depressed prices due to over-supply. The quality demanded of Moldovan produce will only increase as retail channels (supermarkets) grow in importance in Moldova and the CIS region, and as Moldovan producers enter European markets.

6. Performance of Free Economic Zones in Moldova

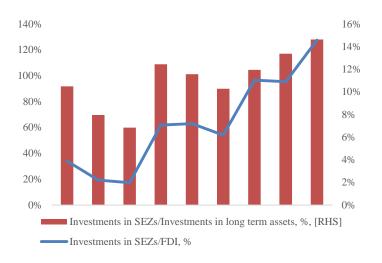
- 51. In 1995, Moldova introduced free economic zone legislation with the aim of accelerating socioeconomic development by attracting domestic and foreign investment, promoting exports, and creating employment. Since then, seven such zones have been established: Expo-Business-Chisinau, Ungheni-Business, Tvardita FEZ, Otaci-Business, Vulcanesti FEZ, Taraclia FEZ, and Balti FEZ. ⁷ Companies operating in the zones enjoy special tax and customs regimes, which are specifically aimed at supporting export promotion and investment attraction.
- 52. Over the last 10 years free economic zones have had a strong performance in attracting investments, and increasing industrial output and employment. A handful of large export-oriented firms changed Moldova's export pattern. However, it is not clear whether there will be long-term spillovers, since these large firms are not highly linked to the rest of Moldovan firms.
- 53. Free economic zones have been successful in attracting investment from both domestic and foreign sources. Since 2002, the volume of foreign and domestic investments in the zones increased five-fold, reaching US\$212 million in 2014. While not all investments in the zones have foreign origin, investments in the zones amount to 80 percent of total FDI stock in Moldova for the period 2009-2014 (Figure 15).
- 54. Free economic zones have become true export platforms, generating a fivefold increase in exports of industrial production from the zones between 2004 and 2014. The majority of industrial production (75 percent) in the zones is exported rather than sold domestically. The share of exported products from the zone reached 9.2 percent of total Moldovan exports in 2014, from 4.2 percent in 2006. Exports of the FEZs are in general more dynamic and are mainly concentrated on manufactured goods. Indeed, exports in FEZs grew from 50 million USD in 2005 to 210 million USD in 2014 (Figure 16).

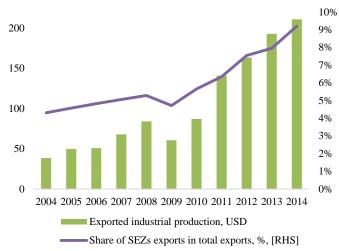
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⁷ There are two other locations that are deemed to be free economic zones: Aeroportul Liber Internațional Mărculești; and International Free Port Giurgiulești.

Figure 15. Investments in Moldovan FEZs

Figure 16. Exports Dynamic of FEZs





Source: Authors' calculations based on data from national authorities.

55. On average FEZs employment had a robust growth in the last seven years and almost doubled since 2008. However, this increase in employment is driven by outcomes in only two zones: FEZ Balti and FEZ Ungheni, where the main production facilities of companies activating in the automotive and textile industries are located. In the rest of the zones, in fact, employment and production levels have declined since the 2008 crisis (Figure 17).

6.1 Dynamic Gains

- 56. Evidence suggests that FEZs have significantly contributed to the diversification of exports and to the changing structure of the Moldovan economy. The latest expansion of investments in FEZs was driven by big international companies in automotive and textile sectors, which have significantly transformed the structure of production, from beverages to electrical machinery and equipment and textiles. The share of industrial goods in FEZ production increased from 4.2 percent in 2006 to almost 10 percent in 2014. This diversification pattern in production at FEZs can be observed in the structure of Moldovan exports.
- 57. The spillovers of FEZs on domestic firms appear to be modest, however, and unlikely to contribute to the technological upgrading and sophistication of the Moldovan economy. Because the largest companies in Moldovan FEZs are part of global value chains and import most of their inputs, they have limited linkages to domestic firms. While domestic companies provide non-industry related services to FEZs residents such as transportation and food, these spillovers are unlikely to add much in terms of diversification and sophistication.
- 58. **FEZs tend to attract industrial activities requiring intensive use of human resources for certain operations** (e.g. fitting parts and subassemblies). These do not always contribute to strengthening sectorial links and diversification of the economy. In this sense, FEZs in Moldova, cannot be a valuable element of industrial and trade policy.

3.8% Ungheni FEZ Share of industrial sales in total **2**010 3.3% udatrial broduction 2.3% 1.8% 1.3% 0.8% **2014** Balti FEZ Ungheni FEZ Chisinau... 0.8% Chisinau FEZ 0.3% Taraclia FEZ Otaci FEZ Balti FEZ -0.2% 7 12 22 32 37 42 47 Share in FEZ employement, %

Figure 17. Share of industrial sales and attracted investments

Source: Authors' calculations

59. The extent to which Moldova can gain from FEZs depends on whether reforms that proved successful within the zones can be implemented in the rest of the economy. Some of the benefits that firms identify in FEZs have to do with streamlined customs procedures and less exposure to arbitrary government inspections. In this respect, FEZs act as a testing platform for certain policy reforms to be implemented. Part of the success of FEZs as an investment policy tool relies on the capacity of the Government of Moldova to learn from these reform experiences and implement those that proved successful in the rest of the economy.

7. Recommendations

60. The analyses conducted in the four notes reviewed have a number of policy implications. Table 4 summarizes the most important of these recommendations.

Table 4. Policy Recommendations

	Short-Term	Medium/Long-term
Trade and investment policy (Note 1)	 Increase market access for Moldovan exporters by: Implementing DCFTA provisions in all sectors. Increasing communication activities related to technical aspects of the DCFTA, with emphasis on tariff-rate quota management and other customs issues. Negotiating other preferential trade agreements at the country level Maintain liberal trade and investment policies, deepening integration with the EU and maintaining agreements with other countries or blocs. Eliminate remaining tariff peaks in some products, such as wine bottles. Eliminate restrictions to trade in services, in the form of barriers to mobility of high-skilled workers, which could be hindering technological and managerial upgrading. Push for urgent adoption by the Parliament of pending traderelated legislation. Actively promote FDI. Identify policy reforms to remove obstacles to investment retention and attraction, including a reform of the Moldova Investment and Export Promotion Organization's institutional setup. Encourage FDI technology and knowledge spillovers to the rest of the economy. Support firms' internationalization Address informational and coordination failures through coordinated export promotion efforts. Improve access to finance, and support to emergence of angel investors and venture capital funds for knowledge-intensive 	Upgrade quality and standards of exports. Replace national standards with EU and international standards. Promote capacity building and strengthening of the National Food Safety Agency. Develop and accredit national SPS laboratories. Raise awareness of the implications of the DCFTA and the requirements of EU markets in specific sectors and regions. Improve logistics and infrastructure — especially to link areas in which firms agglomerate to the global marketplace. Modernize and streamline customs procedures following best practices of select free economic zones. Improve the provision of backbone services through the progressive liberalization of key utilities and introduction of pro competition regulations. Improve the business environment Implement anti-corruption/corruption initiatives. Continue the comprehensive civil service reform effort, with emphasis on the judiciary and the prosecutor's service. Reduce the cost of doing business by streamlining procedures for construction and obtaining licenses.
Enhancing agricultural	 Strengthen producers' technical knowledge and improve distribution of knowledge of production techniques, harvest and post-harvest handling, use 	Reform the agriculture research institutes and the agricultural educational establishments.

competitiveness (Note 3)

of fertilizers and pesticides, use of irrigation, and other technical aspects of production through:

- Extension programs managed by the Ministry of Agriculture and Food Industry;
- Donor-financed advisory services (AGROinform, FNFM);
- U.S. Agency for International Development-funded programs (e.g. ACED);
- o Establishment of a center of excellence; and
- o Engaging foreign experts.
- Strengthen business advisory and market intelligence services for agriculture.
- Optimize the laboratory setup by:
 - Improving the reliability of lab testing and the capacity of staff at testing laboratories; and
 - Seeking international accreditation of domestic laboratories.
- Ensure the appropriate regulatory framework is in place for compliance with international food safety standards, including EU requirements, Global Good Agricultural Practices, and others.
- **Expand public support, including mobilization of donor resources**, to alleviate investment problems along the value chains of competitive sectors.
 - o Promote the planting of modern higher-productivity plant varieties.
 - Assist producers to improve greenhouse and irrigation infrastructure and post-harvest facilities.
- **Improve irrigation infrastructure,** as appropriate for each crop/geographic area.
- Build sector resilience to adverse weather events by stimulating investments in anti-hail nets, anti-frost systems, drought-resistant plant varieties, etc.

- Support development of producers' groups/associations for information-dissemination and -sharing activities, bulk purchases of inputs and sales of outputs (where appropriate), joint ownership of postharvest and/or processing infrastructure, and others.
- **Liberalize the import regime for inputs** (seeds, seedlings, fertilizers, pesticides).
 - Abolish the mandatory testing and registration requirements.
 - Adopt the EU Catalogue for Plant Varieties to offer immediate access to modern EU varieties.
- Focus government support/subsidies on market-driven and innovative investments concomitantly reducing/eliminating subsidies stimulating use of traditional/old technologies and equipment.
 - Review the economics of production of the crops targeted by government subsidies.
 - Adjust the instruments to reduce distortion of market incentives.
- Introduce innovative risk insurance schemes to help producers cope with and mitigate agricultural risks. Consider the index-based weather insurance program.
- Actively support produce differentiation techniques/ practices aimed at accessing premium segments of export markets.

Maximizing gains	
from FEZs (Note	4)

- Downgrade the importance of fiscal incentives by shifting to targeted services for businesses.
 - This shift must be accompanied by a well-functioning monitoring system.
- Promote better linkages of free economic zones with the domestic economy by:
 - Providing incentive mechanisms, encouraging the development of domestic suppliers, and training of workers;
 - Identifying priority sectors and helping domestic companies to link with investors in the zones through supply chains or sub-contracting.
 - Encouraging business networks and clusters between the zones and the rest of the territory by developing a full range of technical and support services; and
 - Developing technical and support services to encourage clustering and networking among residents of the zone and the rest of the economy.
- Streamline rules and regulations, making it easier for companies to operate by:
 - Establishing well-defined rules for investment approvals, work permits, import and export licenses.
 - Streamlining and accelerating customs procedures.
 - Establishing one-stop-shop services with publicly accessible and monitoring elements.
 - Extend to the rest of the economy the privileges and concept of Authorized Economic Operator.
- Empower the regulator with additional relevant institutional capacities and capabilities.
 - Make the regulator an independent agency under a board of directors composed of representatives of all key involved government ministries and control and regulatory agencies, and private sector representatives.
- Ensure the determining role of residents in the appointment of the zone's administrator.
- Establish a proper mechanism for compensating residents of the zones for restrictive treatment of the real assets.

- **Promote firms' productivity upgrading** through:
 - Introduction of suppliers' development programs to increase linkages between foreign and domestic firms;
 - o Support of labor training on the job; and
 - o Facilitating circulation of skilled labor.
- Use free economic zones as testing and learning grounds, implementing successful reforms in the rest of the economy.
- Shift to a common set of incentives for all promoted areas of the economy rather than only to the zones, making fiscal and customs incentives less heterogeneous.