

TECHNOLOGICAL INTENSITY OF MOLDOVAN EXPORTS UPGRADE SINCE THE DCFTA BETWEEN MOLDOVA AND EUROPEAN UNION HAVE BEEN CONCLUDED

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Abstract: *The purpose of this article is to assess the transformations that have occurred in the patterns of Moldovan merchandise exports since the country has signed the Deep and Comprehensive Trade Agreement (DCFTA) with European Union (EU). The specific focus of the paper is to analyze the shift of Moldovan exports' structure toward a more technological intensive one since 2014. DCFTA, that is part of the Association Agreement should faster the reforms in the Republic of Moldova, and therefore to support the transformation of the national economy, its competitiveness improvement. One of the estimated impacts of the above mentioned agreement was to increase significantly the Foreign Direct Investments inflows, productivity and exports. The modernization and expansion of the manufacturing sector is a precondition for upgrading the technological intensity of exports that should determine merchandise exports growth acceleration. The findings of the empirical study reveal that the Agreement influenced positively the dynamics of exports since 2014, despite their sharp decline to the main eastern partners – Russia and Ukraine. The structure of exports has changed toward a higher share of medium technology intensity products due to increasing deliveries to some EU partners as a result of investments coming from West. Yet the unit value of this products is increasing slow and more efforts are needed to increase the economy's productivity.*

Keywords: Association Agreement, DCFTA, exports, technological intensive merchandise, Republic of Moldova

JEL Classification: F13, F15, F42

Introduction

Since the beginning of the economic transition Republic of Moldova has made a lot of reforms in view to build a functioning free market. But, the effects of the reforms on the country's competitiveness are far below what would be expected. European Bank for Reconstruction and Development ranked Moldova on the 26th positions out of 32 present and former transition countries from Central Europe and Baltic states, South-Eastern Europe, Eastern Europe and Caucasus, Central Asia as concerns the competitiveness level – one of the qualities of a market economy's sustainability. The Economy Complexity Index (ECI)³ a measure of a country's capacity to create value-added, of its competitiveness, is significantly lower in Moldova comparative to Central European countries and many South-East European Countries. The index is negative and was declining during the last years. The structure of Moldovan exports, reflects very well the productive capabilities of the economy. As in other EU developed countries, including Central European economies, the highest share of GDP in

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³ Country & product complexity rankings.

Moldova is created in the services sector (64% average 2020- 2021, about 55% except constructions). Although, the share of agriculture is very high amounting about 10% of GDP (annual average 2020-2021) as opposite to that of industry. Also, the content of value-added of the manufacturing sector is enough low, maintaining the huge discrepancy in productivity level between Moldova and EU countries.

Moldova is a net exporter of services, but a net importer of merchandise. The merchandise trade deficit accounted about -30% of GDP in 2021, while the imports coverage by exports ratio was only 44%. Moldova imports a lot of capital and intermediary products that are needed for the production sector, although about 1/3 of merchandise imports are intended for final consumption. As concerns exports, 1/3 are primary products, about 15% are resource intensive products and half of exports are low and medium technology intensive products, resulting mainly from foreign materials processing, usually with a low local value-added content. High-tech intensive products accounts only a small share of Moldovan exports, that have not changed during the transition period.

Moldova has many preferential trade arrangements (with Canada, Japan, Norway, Switzerland, USA) and regional free trade agreements that have been concluded during the last three decades (CIS, GUAM, CEFTA, EU, Turkey, UK⁴). Although the opportunity they offer are not fully exploited by domestic entrepreneurs and more progress in promoting structural reforms are needed.

In June 2014, Moldova has concluded an Association Agreement with EU, that include a Deep and Comprehensive Free Trade Agreement. The Agreement is implemented since September 2014, but entered in full effect in June 2016. It was a step ahead to liberalize trade between the two partners. Unlike previous Autonomous Trade Preferences (ATP) offered to Moldova by EU, DCFTA provide for reciprocal trade liberalization. An extremely important aspect of the Agreement is fostering approximation of Moldovan legislation, rules and procedures to those of EU. The “comprehensive” component of the Agreement includes provisions related to competition policy, protection of intellectual property, sustainable development and transparency, while the “deep” component provide reforms in other very important areas like food safety/sanitary and phytosanitary measures, technical regulations and standards for industrial goods, public procurement, services, customs and trade facilitation⁵. The implementation of the Association Agreement/DCFTA is important for making business climate more attractive both for foreign investments and for local entrepreneurs, especially by widening their access to qualitative raw materials, new technologies and a more sophisticated market; for transforming the economy and making it more competitive.

Literature review

A country exports structure reflects its productive capacity. But the high share of technological intensive products in a country's exports is not always the result of economic activities that generate high value products, as exporting lower technological intensive products do not mean that exporting companies do not innovate and implement new technologies (ESCAP, 2018). Many trade theories states that external trade may reshape the specialization patterns of countries and boost productivity. Hoppe (2005) states that external trade influence technological transfer in a country by several means: import of capital goods, including modern technology and positive output effects from importing more and better intermediate products; by integrating in international value chains that encourage learning by doing and a more intense competition; and by increasing the set of modern technologies, allowing imitation of foreign technologies and innovation. Although the extent to which trade influence

⁴ https://www.wto.org/english/thewto_e/countries_e/moldova_e.htm

⁵ Deep and Comprehensive Free Trade Area EU-Republic of Moldova

https://eeas.europa.eu/archives/delegations/moldova/documents/eu_moldova/argumentaire_en.pdf

technological transfer depends on firms' ability to adopt new technologies. The research intensity of trading partners and the available human capital are also important enablers in this context.

Technological transfer boosts productivity through capital accumulation and industry modernization. Thus increase in productivity foster exports and change their structure patterns. Free Trade Agreements, especially the deep one are efficient instrument to foster trade (Dür, A., Baccini, L., Elsig, M. (2014). These conclusions have been confirmed by Martínez-Zarzoso Inmaculada and Chelala, Santiago (2021). Regional Trade Agreements (RTAs) that contain provisions related to technology transfer, especially Intellectual Protection Rights generate a significantly higher aggregate volume of trade than RTAs that do not and it is exports of technology-intensive goods that increase the most. As concerns the Deep and Comprehensive Agreements, the additional trade effect is positive for almost all trade flows, except for exports from developed to developing countries that shows small negative effects. Adarov, A. and Havlik, P. (2016) argue that the production sector and the competitiveness of Moldova, Georgia and Ukraine shall benefit from DCFTA implementation by lowering import prices for high-technology equipment imported from European Union and by increasing the quality of domestic products if proper implementing and monitoring the EU industrial and food safety standards.

Research design and methodological approach

The main scope of the research is to assess whether the structure of Moldovan domestic exports have changed toward a higher share of technological intensive products since the DCFTA has been signed with EU. In view to achieve the established scope, there have been set the following objectives in conducting the research:

1. To analyze the technological intensity of Moldovan merchandise exports before and after 2014 and to quantify the contribution of trade relations with EU in changing Moldova's technological intensity of merchandise exports.
2. To analyze the dynamics of FDI inflows and import of capital goods in Moldova, including from EU after 2014.

The authors' hypothesis is that the DCFTA, accompanied by an ambitious agenda of reforms should boost foreign direct investments inflows in the manufacturing sector and imports of capital goods determining the modification of Moldovan exports towards a larger share of technological intensive products.

The breakdown of exports structure according to their technological intensity has been made according to the methodology proposed by Sanjaya Lall (2000) in the working paper *The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-1998*. The author has grouped the exports disaggregated at 3-digit level of SITC rev 2 classifications in 5 categories:

1. **Primary products** (ex.: cereals, fresh fruits, meat, petroleum, gas and others);
2. **Resource based products: agro/forest based products and other products** (prepared meat, waters, jam, beverages, wood products, glass, cement and other products);
3. **Low technology manufactures** (textile fabrics, clothes, furniture, leather products, toys, plastic products etc.)
4. **Medium technology manufacturers** (passenger vehicles and parts, syntactical fibers, chemicals, fertilizers, iron, motors, pumps, watches etc.);
5. **High technology manufacturers** (communication equipment, TV, power generating equipment, pharmaceutical, optical/measuring instruments etc.) (Lall, 2000).

Statistical data on international trade grouped according BEC classification were used to capture the imports of capital goods in Moldova. According to BEC classification merchandise trade is grouped

in 3 categories of products: consumption goods, intermediate and capital goods. Some commodities like motor spirits, passenger motor vehicles and gold are not included in one of the above mentioned categories

Statistical data on technological intensity of exports from Moldova and other Central European Countries and end-use of Moldovan imports have been taken from World Integrated Trade Solution (WITS) database.

Other important sources of statistical data used to conduct the research are the official International Merchandise Trade Statistics provided by the National Bureau of Statistics from Moldova; international account statistics (Balance of Payments, Coordinated Direct Investment Survey) produced by the National Bank of Moldova.

Results and discussions

Immediately after becoming independent, the traditional partners for Moldova's merchandise external trade used to be the Commonwealth of Independent States (CIS), with a significant share of Russian Federation. Nowadays, more than half of external trade is made with EU partners, Romania being the leading export Market for Moldovan products.

The policy of trade liberalization and foreign investments attraction, preferential trade agreements with EU and frequent non-tariff barriers imposed by Russia to Moldovan determined a significant change in geographical and commodity structure of Moldovan merchandise exports well before the Association Agreement has been concluded. Already in 2013, about 46,8% of merchandise exports went to EU and accordingly, 45% of imports. Till 2019, the EU share in Moldovan exports increased to 66%. The Covid-19 world economic crisis caused a steep decline in merchandise trade of Moldova in 2020, that recovered well in 2021, but with a slower rate in EU countries compared to other partners. This caused a slight decrease of its share in Moldovan exports in 2021 compared to 2019.

Table 1. Value, structure and growth of Moldovan external trade

<i>Trade flow/Group of countries</i>	<i>Value, mil. USD</i>			<i>Compound annual growth rate, %</i>		<i>Trade structure, %</i>		
	2006	2013	2021	2016-2013	2014-2021	2006	2013	2021
Exports	1050,4	2428,3	3144,4	12,7	4,3	100	100	100
<i>CIS</i>	423,6	923,2	466,2	11,8	-6,3	40,3	38,0	14,8
<i>EU</i>	536,9	1137,3	1919,4	11,3	6,4	51,1	46,8	61,0
<i>Other countries</i>	89,8	367,8	758,8	22,3	11,3	8,5	15,1	24,1
Imports	2693,2	5492,4	7176,6	10,7	4,4	100	100	100
<i>CIS</i>	1020,8	1672,3	1905,3	7,3	11,7	37,9	30,4	26,5
<i>EU</i>	1218,5	2472,1	3149,1	10,6	3,0	45,2	45,0	43,9
<i>Other countries</i>	453,9	1348,0	2122,2	16,8	7,3	16,9	24,5	29,6
Trade Balance	-1642,8	-3064,1	-4032,2	9,3	4,4	100	100	100
<i>CIS</i>	-597,1	-749,1	-1439,1	3,3	10,5	36,3	24,4	35,7
<i>EU</i>	-681,6	-1334,8	-1229,7	10,1	-1,0	41,5	43,6	30,5

Other countries	-364,1	-980,2	-1363,4	15,2	5,4	22,2	32,0	33,8
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Source: Authors calculations based on National Bureau of Statistics data

In 2014-2015 the Moldovan economy was exposed to many internal and external shocks, including a domestic financial crisis that affected the stability of the national financial sector, drop in international commodity prices, Russia-Ukrainian crisis. Russia banned the import of some products from Moldova (OECD 2020) for which it is an important market (vegetables and fruits, solid cane, beet sugar, wines) as response to Moldova’s decision to conclude the AA with EU. Thus in the second half of the last decade the Moldova’s economic growth slowed down. The merchandise exports growth to EU slowed to a single digit, although the western market absorbed partially the shock produced by Russian embargo. Imports growth rate during this period was even slower. Negative external trade balance, that is highly unsustainable in Republic of Moldova, against all expectations improved slightly with EU partners. The DCFTA provide gradual reciprocal trade liberalization with western economic partners in contrast to Autonomous Trade Preferences and GSP schemes that granted for Moldovan exporters domestic products asymmetrical preferential access to EU market.

Since 2014, the volume of Moldovan exports to the EU grew above its long term trend line in contrast to decline in exports to CIS. Barriers to trade on the Russian market, determined a part of domestic producer to diversify markets. Albeit unit value of Moldovan exports grew very slow on both markets that is explained by international price evolution in first years of agreement’s implementation but mainly by the structure of the commodity export basket.



Figure1. Moldova’s exports to EU and CIS countries: evolution of unit value index vs volume index, actual evolution vs the long term trend.

Source: Authors calculations based on National Bureau of Statistics data

Overall, about 1/3 of Moldovan merchandise exports are primary products against 17% of resource based products while about half are low (25%) and medium (24%) technological intensive products. High intensive industries production have just a tiny share in the domestic manufacturing. Consequently, high-intensive manufactures represent only 2% of gross merchandise exports, recording the lowest level among Central European Countries.

Table 2. Technological intensity of merchandise exports in Moldova, Central Europe and some of South-East economies, % of gross exports, 2021

	<i>High Tech</i>	<i>Medium Tech</i>	<i>Low Tech</i>	<i>Resource Based</i>	<i>Primary products</i>
<i>Hungary</i>	27	43	11	12	7
<i>Czech Republic</i>	23	42	19	11	5
<i>Estonia</i>	18	22	13	36	11
<i>Slovakia</i>	16	51	17	11	4
<i>Slovenia</i>	15	38	21	17	1
<i>Poland</i>	14	33	27	17	9
<i>Latvia</i>	12	18	17	34	19
<i>Romania</i>	10	44	19	15	12
<i>Lithuania</i>	9	28	21	31	11
<i>Croatia</i>	9	24	19	25	22
<i>Cyprus</i>	4	46	03	43	5
<i>Turkey</i>	4	31	37	18	1
<i>Montenegro</i>	3	9	7	36	45
<i>Ukraine</i>	2	23	19	25	32
<i>Republic of Moldova</i>	2	24	25	17	33

Source: WITS data

After 2013, primary products and medium intensive manufactures exports have grown faster, compared to other group of products. Consequently, the commodity structure of Moldovan exports changed towards a greater share of these two product groups. But overall, the aggregated share of low, medium and high tech intensive manufactures did not change. High-tech exports remained at a very low level. Actually, Moldovan exports to EU determined the positive trend of technological intensive products and agricultural processed products exports during this period.

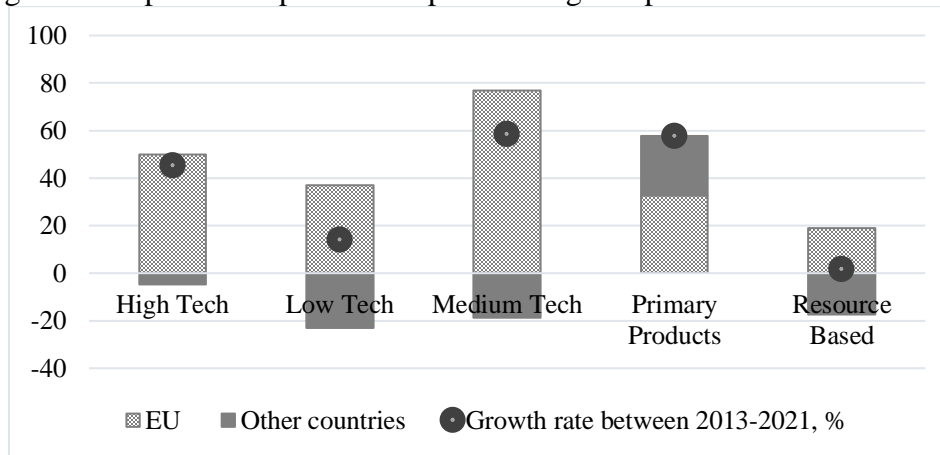


Figure 2. Contribution of EU market to Moldovan exports increase by group of products based on their technological intensity

Source: Authors calculations based on WITS data

European Union is the primary market of Moldovan technological intensive manufactures exports. About 90% of Moldovan exports of medium tech products was going to EU in 2021 and almost 70% of high tech and low tech products. During 2013-2021, medium and low tech products have had the biggest contribution to Moldovan merchandise growth to EU. European Union is an

important market for resource based and primary products as well. Although, the export of the last mentioned products to EU countries is challenging because of high quality standards on this market and the big constraints that small producers from Moldova face to adapt their production to European and international standards (OECD, 2020). Following its engagements in the signed AA, Moldovan authorities already made huge progress to modernize the domestic quality infrastructure (European Commission, 2021).

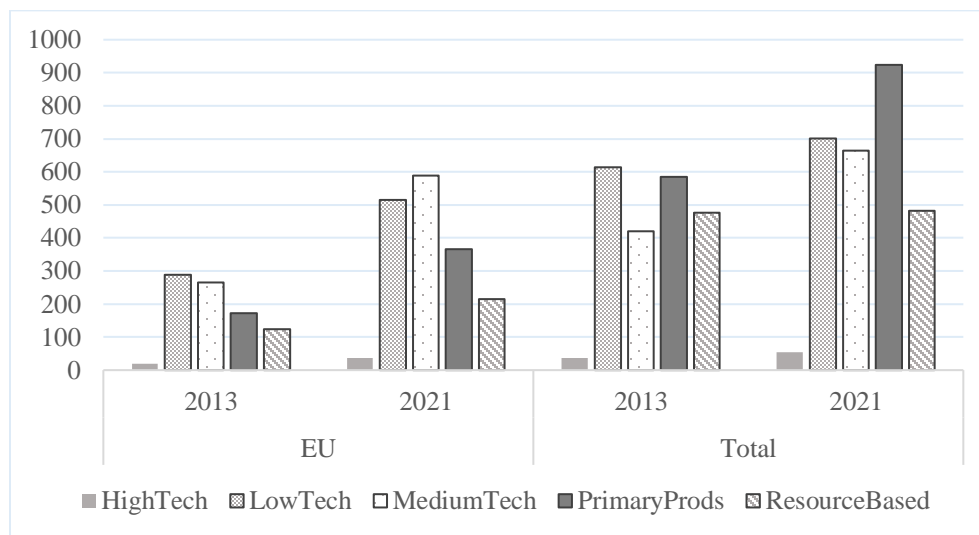


Figure 3. Exports of Moldova to EU by technological content of products

Source: Authors calculations based on WITS data

Since 2013, Moldovan exports have increased to almost all EU countries, although the concentration degree based on top three markets stay high - about 68% in 2021. For many years, Romania is the first export market for Moldovan goods, absorbing 43.4% of exports going to EU a more than a quarter of total value of merchandise exports. Common borders and strong cultural and historical ties with Romania, explain the ease of trade intensification of Moldovan enterprises with Romanian partners. This is an additional boost for Moldovan authorities to adjust the quality infrastructure to that of EU, and for the business to adapt their production to EU and international quality standards. Although, this high concentration highlights the Moldovan business low capacity to diversify markets. Despite some evident progresses achieved during the last years in diversifying markets, entrepreneurs from Moldovan exports to less markets than those in most Central and Eastern European countries and are relatively much concentrated.

Moldova is promoting an ambitious reform agenda in the context of AA implementation, besides other public policies that was designed during the last decade to speed up economic growth: improve the economy's competitiveness, develop SME's sector, attract FDI to increase exports and others. Although, after their implementation the aggregate productivity of Moldovan economy didn't converge much towards the level of former transition economies from Central Europe and the EU average, the gap remaining huge (Stratan A., Toaca Z, Fala V., 2021). By creating and consolidating industrial infrastructure there have been given impetus for attracting foreign investments and support the growth of new, non-traditional economic activities for Republic of Moldova: automotive and engineering industry that in European Union and OECD is classified as medium-high technology intensive and information technology services – high tech knowledge services. Investments from EU played an important role in developing the above mentioned industries, as well as other sectors. In 2019-2020 the share of EU in total inward FDI stock in Moldova was over 70%. After the AA has been

concluded the stock of FDI in Moldova coming from EU increased in value and also as a share of the total inward FDI stock. But FDI inflows were very sensitive to the domestic financial crisis and also the Covid 19-crisis.

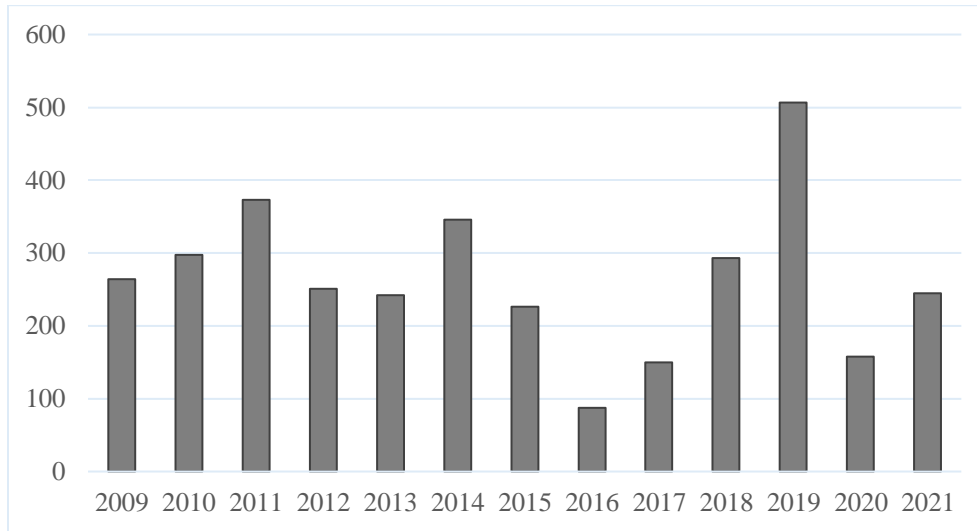


Figure 4. FDI inflows in Moldova (according to the BOP6 data)

Source: Elaborated based on National Bank of Moldova data

In manufacturing, Moldova is attractive for vertical FDI projects. The aim of this projects is to make production more efficient by reducing production costs and Moldova the European countries with the labor force. Trade liberalization thorough “deep” trade agreements tends to facilitate vertical and export supporting FDI (Carril-Caccia F., Pavlova E., 2018). After 2013, in the “good” economic years some of the existing investments projects from western partners have been extended and other new were attracted. Although the potential for making these projects more intensive in knowledge and technology in Moldova is far untapped despite they have a big positive impact on increasing employment, generating relative decent wages for employees in rural and urban areas beside the Chisinau city. Also they stimulated the industry restructuring and exports growth. But the value added of this products and services is rather low.

Investment projects attracted by Moldova in IT, engineering and automotive industry, can’t be attributed solely to AA implementation. The IT sector and manufacture of electrical equipment were selected as priority sectors in the Strategy for investment attraction and export promotion Strategy adopted in 2016 that provided for the creation of an IT park and further facilitating tax regime in Free Economic Zones, were more foreign investors in manufacturing production are located. Along with the electrical equipment fabrication, some existing and also new producers developed investment projects in the manufacture of motor vehicles, trailers and semi-trailers. But they are producing mainly insulated cable and wares that requires labor skilled work and the business linkages with other domestic enterprises are weak (BIS, 2019).

The implementation of AA is an important step for making Moldova a more attractive site for investments, including foreign one in high value added production. Among the transition countries in the region (Southeast Europe and the CIS), Moldova manages to attract few FDI. During the years 2010-2020, Moldova attracted on average annual FDI inflows that amount about 2.9% of GDP, compared to 4.1% the average of Central European countries. The stock of inward FDI at the end of the 2021 year amounted for 35% of GDP (about 4.8 billion USD) decreasing by 4.8 p.p. compared to 2019. In Estonia, according to the UNCTAD FDI statistical data the inward stock of FDI relative to GDP

amounted 89% in 2019, in Bulgaria 78%, Czech Republic 68%, Latvia 52%, Romania and Poland 40%.

After 2013, the inflows of FDI in Moldova haven't increased significantly, but a critical factor may be considered the internal financial crisis raised up the financial and even political risk, that are considered among the main factors determining investment decisions of Multinationals Companies. The existence of a stable and predictable legal framework in the host country is a key factor in making a decision to implement FDI by multinational companies, and about 2 out of 3 investors will give up their investment plans or decide to withdraw them at political risk. increased (Kerkapoly M., 2021). In the international rankings, however, Moldova is ranked in the group of countries with high country risk, due to high economic, political and financial risk. Along with Montenegro they are the only European countries with such high risks (Allianz, 2022). In 2019 FDI inflows in Moldova grew up to a record value for the last decade - about 500 mil. USD, but they went predominantly in the trade and financial services, and just a small amount was invested in the manufacturing sector. Except 2017, the inward FDI stock in manufacturing sector has changed only to a small extent.

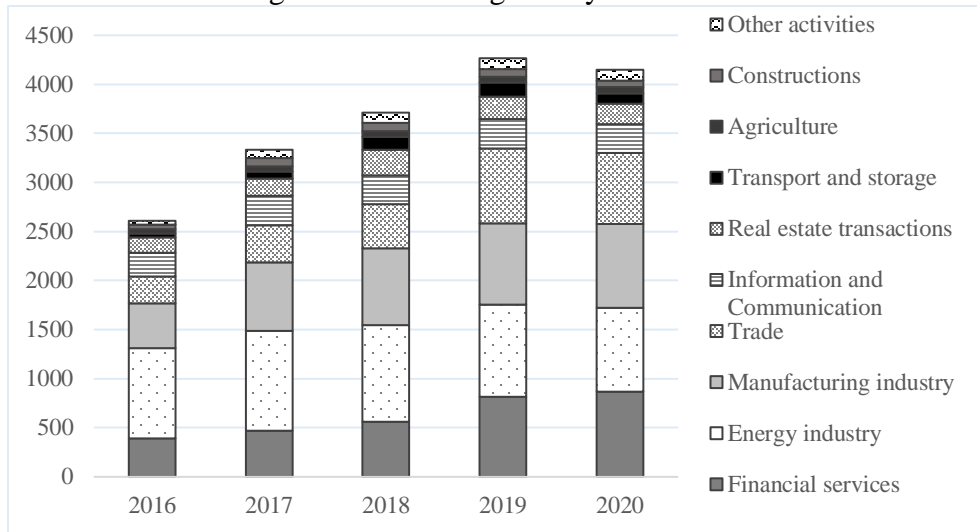


Figure 5. Sectorial distribution of FDI inward stock in Moldova (according to the BOP6 data)

Source: Authors calculations based on National Bureau of Statistics data

Capital intensity of the national economy is low in comparison to Central European economies, that explains the big gap in labor productivity. While Moldova has a huge trade deficit, capital goods represent only a small share of imports. FDI inflows may be an important engine for capital goods imports. While import of capital goods are important to boost export of industrial products (Rijesh R., 2020). The Investment Attraction an Export Promotion Strategy implemented since 2016, was intended to stimulate investment inflows in national economy through specific actions, but the stake is on AA implementation as an important instrument to improve general business climate and the external country's image. After 2013 the share of capital goods in merchandise value has increased slightly converging to most Central European Countries. But the increase in value was relative small in the first years of implementation, while during the financial crisis they even dropped. A stronger growth was recorded in 2021 that is correlated with exports rapid growth of 27% compared to 2020, recovering after a 11% decline during the Covid-19 crisis. As concerns the source of supply, imports of capital form EU increased slower than those from other countries, especially China, despite the biggest share yet comes from western partners (41%).

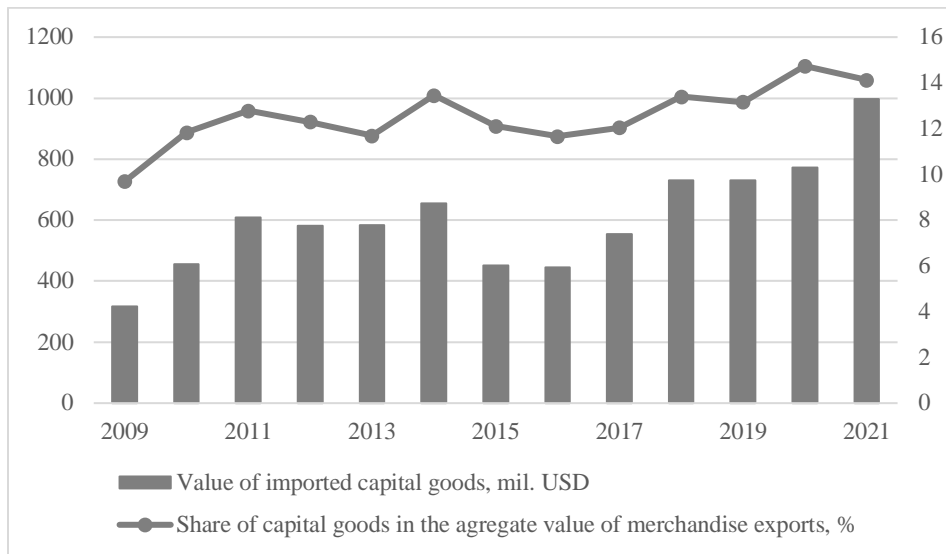


Figure 6. Imports of capital goods in Moldova

Source: Elaborated based on WITS data

Conclusions

The aim of this paper was to analyze whether the exports of Moldova became more technological intensive after the DCFTA as part of the Association Agreement with EU has been signed. The authors were hypothesizing that the Association Agreement implementation should have a positive impact on FDI inflows, capital accumulation and productivity, that will make Moldovan merchandise exports more technological intensive.

The results show that after 8 years of implementation the share of primary and resourced products, that are mainly agricultural based remained huge and have not changed. Within the tech intensive manufactures exports there was an increase of the share of medium technological intensive products, due to vertical FDI projects attracted in engineering and automotive industries, mostly from EU partners. Republic of Moldova does not make much progress in increasing the share of high technological intensive products, while the exports of medium technological intensive products have a low domestic value added content. The value unit of merchandise exports compared to 2013 pre accession year has not increased. After 2013, Moldova did not succeed to significantly increase FDI inflows in the manufacturing sector, correspondingly of capital imports although both flows recorded positive evolution in most of years during this period of time.

Since 2014 the volume of merchandise exports to EU increased above their historical trend line that has consolidate the leader position of this market for exports from Moldova. Intensification of Moldovan exports to EU, absorbed the shock to which domestic producers was exposed on the Russian market since de AA has been concluded.

The modest progress made by Moldova to supply on the world market more technological intensive manufactures have several explanations. At the beginning of AA implementation Moldova has exposed to many big internal and external shocks that have had a negative impact on the investment climate and slowed down the reform progress intended by AA implementation. Political and Financial risks are at a high level compared to other EU partners that is a major factor that influence investment decisions of multinational companies, but of the major local investments too.

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Annex 1. Technological intensity of top 20 products exported by Republic of Moldova in 2021

SITC rev2	Product name	Technological intensity	Total export value, mil. USD	Exports value to EU, mil. USD	EU/Total, %	% in total exports	% in exports to EU
773	Equipment for distributing electric	Medium technology manufactures (engineering)	462,8	461,9	99,8	14,7	24,1
222	Oil seeds and oleaginous fruit	Primary product	251,1	147,9	58,9	8,0	7,7
057	Fruit & nuts (not includ. oil nuts)	Primary product	229,7	80,7	35,2	7,3	4,2
041	Wheat (including spelt) and meslin	Primary product	207,7	52,9	25,5	6,6	2,8
112	Alcoholic beverages	Resource based manufactures (agro-based)	190,6	63,1	33,1	6,1	3,3
821	Furniture and parts thereof	Low technology manufactures	157,2	150,3	95,6	5,0	7,8
044	Maize (corn),un milled	Primary product	127,3	51,0	40,1	4,0	2,7
423	Fixed vegetable oils, soft, crude, ref	Resource based manufactures (agro-based)	120,1	105,8	88,1	3,8	5,5
843	Women outerwear non knit	Low technology manufactures	101,0	64,2	63,5	3,2	3,3
541	Medicinal and pharmaceutical products	High-technology manufactures	86,4	4,1	4,8	2,7	0,2
845	Outerwear knit non-elastic	Low technology manufactures	72,1	34,4	47,7	2,3	1,8
058	Fruits preserved, prepared	Resource based manufactures (agro-based)	55,8	30,9	55,4	1,8	1,6
665	Glassware	Low technology manufactures	55,1	42,8	77,7	1,8	2,2
893	Articles of plastic	Low technology manufactures	53,3	36,5	68,5	1,7	1,9
842	Men outerwear non knit	Low technology manufactures	53,1	52,3	98,5	1,7	2,7
288	Non-ferrous base metal waste	Resource based manufactures (agro-based)	46,5	23,9	51,5	1,5	1,2
781	Passenger motor cars	Medium technology manufactures (automotive)	43,4	42,8	98,6	1,4	2,2
282	Waste and scrap metal of iron or steel	Resource based manufactures (agro-based)	40,8	2,8	6,8	1,3	0,1
846	Under garments, knitted or crocheted	Low technology manufactures	38,2	9,6	25,3	1,2	0,5

512	Alcohols, phenols, phenol-alcohols	Medium technology manufactures (process)	35,7	15,5	43,6	1,1	0,8
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Source: Elaborated by authors based on WITS data