

MODELS OF INTERACTION BETWEEN THE STATE OF ORIGIN AND THE DIASPORA

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Abstract: *The impact of the diaspora on the development of the state of origin is a topic that appeared relatively recently in the areas of interest and on the public agendas of the states. Currently, throughout the world, the diaspora represents an active force, involved in almost all areas of activity of a society, which tends to develop and maintain multilateral ties with political, social and cultural institutions in the country of origin or destination. Since the 1990s, more and more states have launched various initiatives at the governmental level in order to attract the development potential of the diaspora. However, often factors such as the availability of institutional means, available time, the needs, desires and capacities of diaspora members to engage in such activities, reduce the panoply of viable options regarding the state's implementation of diaspora-related development objectives. The given article aims to summarize the ways of interaction of the states of origin with the diasporas, to identify the opportunities and challenges of the various policies implemented in the field of the diaspora and to structure examples of good practices applied at the international and national level.*

Keywords: *diaspora, state of origin, diaspora engagement policies, development*

JEL Code: *F22, F63, J68*

Introduction

The perpetuation of the migratory phenomenon and the highlighting of the role of migrant communities consolidated outside the state of origin, put the states of the world in a position to redefine their relationship with the diaspora and to implement concrete actions aimed to capitalize the potential of the diaspora. These actions have also diversified and developed over time, including new and new dimensions: from talent return programs and repatriation of funds to the country of origin, to various projects to transform members of the diaspora into partners of sustainable projects development. At the same time, while some governments resorted to measures such as the implementation of a legislative and regulatory framework favorable to relations with the diaspora, others capitalized even more on this potential by creating, either in the territory of the country of origin or in the territory of the destination country, various specialized institutions in order to strengthen the interaction with the diaspora. This trend has accelerated in the last years all over the world, and the institutions recently created are located at different levels of public administration, represent structures with a different degree of organization and have different objectives (e.g. some structures are exclusively intended for diaspora members living abroad, others to the members of the second-generation diaspora, some structures

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run development programs associated with the resident population in the country of origin, collaboration programs between representatives of the academic or professional environment from both countries, others aim programs to strengthen the cooperation of the environment of business and investment attraction, cultural programs, study programs and exchange of experience between countries, etc.). The gap that we have identified in this sense relates to the lack of a clear vision in the specialized literature regarding the identification of the best methods of interaction of the state of origin with the diaspora, the categories of most efficient institutions specialized in the field, factors that determine the effectiveness of their activity, as well as aspects that need to be taken into consideration during the implementation by the state of the programs concerning diaspora. So, the article aims to represent a consolidated analyze of international best practices including elements mentioned above, which can serve as a theoretical basis for researchers in the field of diaspora, policymakers, government structures, local administrations for distinguishing what are the factors that determine the performance of different models of interaction with diaspora and how this performance can be improved.

1. Literature review

The existing differences in the way that these programs are defined, the lack of constant monitoring and solid evaluations, sometimes make the comparative analysis of the policies and the level of effectiveness of the institutions that implement them - quite difficult, considering that mostly the scientific research on this area, the policy documents and their results are presented in a descriptive and affective manner.

Tinajero (2013) identifies in his research related to relations with the country of origin, five different levels of diaspora involvement in development, classified in ascending order according to the level of participation:

1. *Receiving information.* Diaspora members passively receive information about various development-related initiatives launched in their home countries;
2. *Passive possession of information.* Members of the diaspora are providers of information to stakeholders, including governments in their home countries;
3. *Consultation.* Actors involved in the development process, including governments of countries of origin or destination, consult the members of diasporas to inform themselves about the policies or practices implemented;
4. *Collaboration.* Members of the diasporas assume certain responsibilities, either by delegating tasks to other actors, or by jointly planning/implementing development projects;
5. *Self-mobilization.* Members of the diasporas are independent in making decisions about the development initiatives implemented (Migration data portal, 2022).

Haruta (2017) mention that the multitude of diaspora typologies that we find in the specialized literature demonstrates how complex and multidisciplinary the diaspora phenomenon can be approached and how different the processes that the diaspora is a part of can be. Although most of the times the establishment and strengthening of relations with the

members of the diaspora are merits appropriated by the governments of the countries of origin, some authors consider that in fact, namely the way of maintaining relations with the country of origin through political, economic and socio-cultural activities of the citizens who emigrated, determines the change in the attitude of the states towards their compatriots.

Once arrived in the country of destination, highly qualified migrants tend to associate in various communities not necessarily with the aim of ensuring better living conditions, but with the aim of finding their customs, traditions, mother tongue and contacts with their native country. By joining to existing diaspora associations or creating new associations, the dynamism of increasing the number of diaspora members at the international level and diversifying the way of their involvement in the economic development process is maintained.

Studying their relationship with the country of origin, the researcher Genisaretsky (1970) distinguishes two types of diasporas/immigrants from countries of origin:

- diasporas/ immigrants who during many generations maintain a historical, identity based and mutually supportive connection with their country and form communities located compactly territorially, and;
- diasporas/ immigrants that do not form dense communities.

The same approach in the classification of diasporas from the point of view of geographical location can also be found at Sheffer (2010). He divide the migrants communities in *dispersed diasporas* and *compactly located diasporas* (Putina, 2015, p. 2). The location of the diasporas from a territorial point of view is a factor that requires increased attention, because it subsequently influences the way the state of origin defines and implements certain models of interaction with its citizens from the diaspora.

In the context of the influence exerted by the diasporic group on the system of interstate relations, the researcher Poloskova (2002), as a result of carrying out studies on various diasporic communities in Russia, Estonia, Lithuania, Ukraine, Moldova, Finland, etc., defines several types of diasporas from the perspective of the geo-political criterion:

- diasporas whose ideology and practical activity have an impact on the development of the system of global international relations. The criteria that determine the diasporas belonging to this category are the location space, the economic, political and influence potential at the international level, the existence of institutions with global impact such as world congresses or international associations (e.g. the World Congress of the Ukrainian Diaspora, the World Congress of Russians Compatriots Abroad, World Congress of Diaspora and Polish Houses, Diaspora Congress from the Republic of Moldova, etc.);
- diasporas whose activity has an influence on interstate relations at the regional level and at the level of groups of states (e.g. the group of countries in the region of South-Eastern Europe, Central Asia, etc.);
- diasporas influencing bilateral relations between states.

Other researchers believe that belonging to a member of the diaspora means rather a state of mind. For Birkenhoff, diaspora means "*psychological belonging to a common culture in a country of origin or destination*" (Constant & Zimmermann, 2016, p. 3).

2. Data and Methodology

The foundation of different institutions in order to facilitate the links with the diaspora became more frequent in the last years. Although the analyze do not represent exhaustive research over all countries of the world, the paper evaluate how a part of the states have chosen to structure their relations with the diaspora. The article describes initially some important categories of diasporas and their role to set diaspora in the countries of origin as a priority direction at the national level.

In order to achieve the objectives proposed for the realization of this article, the research methods used in writing the paper were: the analysis of the existing theoretical and statistical data related to the subject, the synthesis of scientific approaches regarding the level of involvement of the diaspora in development, the comparative analysis of the diaspora typologies retrieved in the specialized literature, the comparative analysis of the methods and policies implemented in the field of the diaspora in different states in order to identify and deduce the interdependence between the policies implemented by the state at different hierarchical levels and the predisposition of the diaspora to contribute to the development of the countries of origin.

3. The Model and Findings

3.1. Internationally validated models of good practice of interaction between the state of origin and the diaspora

When we refer to the valorization of the relations of the state of origin with the diaspora, the main purpose of the authorities should be designed, first of all, to ensure the protection of citizens, the creation of favorable conditions for the development and consolidation of the diaspora's contribution to the development of the country of origin, the valorization of the financial potential of migrants by offering alternatives for directing remittances into investments, transferring their knowledge, know-how and newly acquired skills. The governments of the countries of origin are gradually becoming aware that migrants are becoming more important strategic partners than other groups of internal or external partners. Sometimes, the interest towards the diaspora of the countries of origin is also inspired by the policies promoted by the more developed states in the neighboring regions, by the examples of good practices promoted by international organizations (OECD, UN, World Bank, USAID or IOM) or by the support offered by them in the efforts of the countries of origin to establish relations with the diaspora or migrants. At the same time, the implementation of these policies is interpreted as an alignment with the strategies of the national and international dialogue partners.

According to an International Organization for Migration study (Agunias & Newland, 2012), in over 56 countries of the world, more than 400 specialized institutions were already established in the structural achievement of the objective of the integration of the diaspora in the development process and, according to Constant & Zimmermann (2016), half of The United Nations member countries had diaspora cooperation institutions.

At the global level, these institutions are hierarchically positioned in the following levels:

1. Ministerial. Since 2001, diaspora ministries have been established in several states that deal exclusively with issues of members of the diaspora (e.g. the Ministry of State for Diaspora Issues in Georgia, the Ministry of Information and Diaspora in Israel, the Ministry of Religion and Diaspora in Serbia, ex-Ministry for the Romanians from Everywhere in Romania, etc.). With the establishment of these ministries, the Government assumes the fact that the institutions that previously managed this field, such as the Ministry of Labor or the Ministry of Foreign Affairs, do not have the capacity to cover all the programs intended for migrants in all their dimensions. Compared to institutions located at a lower hierarchical level, ministerial-level institutions receive regular budget allocations, benefit from support from the state leadership and have a clear development-oriented mandate. By establishing or reorganizing these ministries (some of which were previously offices attached to a ministry), the Government is giving to diaspora the greatest political importance. One of the first such ministries was the Ministry of Haitians Abroad, created in 1995 with the aim of encouraging diaspora communities to get involved in national development efforts and invest in their country of origin. Similar ministries existing in other countries have various objectives such as encouraging the return of qualified young people and reducing their exodus, establishing a virtual business community to favor investments or promoting the inclusion of the children of diaspora members in higher education institutions in the country of origin. Some states have decided to create hybrid institutions, through which they combined diaspora issues with other areas of national interest such as work, tourism or foreign affairs (e.g. the Ministry of Foreign Affairs and Migrants in Lebanon or the Ministry of Trade, Industry, Consumers and relations with diaspora from Dominica). This way of establishing joint ministries is not only profitable from the point of view of the cost-effectiveness ratio, but also reduces the uncertainty vis-à-vis the simultaneous involvement of different ministries on similar problems of the diaspora;

2. Sub-ministerial. Some countries have chosen to structure their engagement with the diaspora at a sub-ministerial level, through offices usually attached to the Ministry of Labor and/or Foreign Affairs. The Philippines was one of the first countries to implement such a structure in 1981 - the Overseas Workers Protection Administration, under the authority of the Ministry of Labor. Most institutions of this type, aim to facilitate the integration of the diaspora into the host society and its involvement in the development of the country of origin. Their general orientation is consistent with the attributions and priorities of their guardianship body. At the same time, while South Korea has similar structures dedicated to the diaspora, it is unique in its diaspora policies as they differ depending on the country of destination. For example, policies regarding the Korean diaspora in the US are different from those promoted in China (Constant & Zimmermann, 2016, p.20);

3. National. At this level, the institutions do not have the status of a separate ministry, but they report directly to the highest level in the state and have an important influence within the government. For example, the Commission for Overseas Filipinos,

established in the Philippines to promote economic and cultural ties between the nation and the diaspora, reports directly to the Presidency. The Overseas Chinese Relations Office reports directly to the Prime Minister of the Chinese government. Institutions with a similar structure can be found in Switzerland, Portugal, Poland and, respectively, the Republic of Moldova. Other governments have established intergovernmental and parliamentary committees in order to coordinate the actions dedicated to the diaspora, both legislatively and executively. Poland, for example, has framed such a structure within its legislative body, which facilitates the adoption of essential laws in favor of the diaspora and intensifies its contribution to development;

4. Local. The contribution of the diaspora is not always oriented only towards projects at the national level. Various studies have shown the openness of the diaspora to also engage in projects at the local level, in their hometown, where the community is familiar and they are much more motivated to contribute to the development of their hometown. China is the country with the most extensive network of local institutions dedicated to diaspora relations. Although the main directions of activity of these local organizations are usually drawn at a centralized level, they are nevertheless quite autonomous in decisions about attracting investments from the diaspora and have a positioning much closer to the needs of the population in the country of origin. On the other hand, for members of the diaspora, development projects carried out at the local level have a greater degree of credibility, and they can closely monitor how the contributions offered are managed;

5. Consular. In order to ensure full participation of the diaspora in local development projects, governments sometimes need to create and develop institutions not only on the national territory, but also abroad. The easiest is to involve the consular structures already present in the countries of destination of the migrants which constitute the first point of contact with the native population. In this sense, governments require their consulates to systematically establish links with emigrants, to ensure that they remain in contact with their country of origin. In addition to the basic services provided by consulates based on the Vienna Convention of 1964 (to promote the development of commercial, economic, cultural and scientific relations between the country of origin and the country of destination), consular representations increasingly try to facilitate integration or improve the living conditions of migrants in the countries of destination through various means: education, medical assistance, cultural and community events, counseling for families facing private difficulties and also to cultivate links between migrants, their descendants and their countries of origin. Some states choose to increase their diplomatic presence specifically in countries where a large part of their population is found. The best known example is that of Mexico which has a significant presence worldwide with over 150 representations, including 50 consulates in the United States of America alone (no other country has so many consulates in a single host country). The composition and qualification of the diplomatic staff has also evolved recently, especially to better respond to the expectations and interests of the diaspora. The practice of some governments promoting

through consular networks the sale of special bonds in order to attract capital from the diaspora is increasingly common. The governments of Israel and India have managed to attract billions of dollars through this type of initiative;

6. Parastatal (or quasi-governmental). Some governments choose less traditional ways to structure their relations with the diaspora by creating foundations or councils. This type of parastatal institutions are usually found in countries of origin that do not want to create the impression that they are involved in the internal affairs of other nations. In 1990, Morocco established the *Hassan II Foundation*, which is described as a private, non-profit and non-governmental body, and according to A. Zahi, one of the former directors of the foundation, a foundation is often more appropriate than a ministry, because it does not touch other sensitive points when referring to the problems of migrants and the authorities of the destination state are more receptive to the issues raised.

The establishment and coordination of efficient and viable public institutions capable of responding to the needs of both the local population and the diaspora is still quite a difficult process for the governments of the countries of origin. Most of the time, problems are related to the lack of financial, technical and political resources, which ultimately leads to the creation of ambitious organizations in the proposed objectives, but with limited capabilities in achieving them. At the same time, as we mentioned before, it is difficult to assess the real effectiveness of these institutions focused on the diaspora and the concrete contribution to the level of national development.

In this sense, international organizations in the field of migration and diaspora formulated 4 recommendations addressed to the countries of origin in the implementation of their policies:

1. Thorough preparation by studying the needs, expectations, potential of the diaspora and defining a structured strategy regarding the attraction of the diaspora in economic development programs. It is also essential that the capacities, competences and intentions of the authorities are converging and complementary with the proposed objectives;
2. Focusing on both elements: process and outcome. The manner in which competent institutions are created is an indicator of their degree of success. At the same time with the planning process, the clear delimitation of responsibilities within and between public authorities, financial transparency, as well as the establishment of a climate of trust and effective communication channels with the diaspora are necessary. Also, international experience demonstrates the fact that the success of an institution's activity is all the greater the more diasporas are involved in planning its activities (either directly or indirectly);
3. Investing in continuous capacity building. Strengthening the capacities of the institution must represent a priority and a premise in the realization of its duties. Establishing adequate funding, expanding technical know-how and stability of partnerships are three key elements of this process. In the case of economic constraints that the countries of origin may face, the model of parastatal

institutions described above could represent a good alternative for assuming some implicit associated costs by the members of the diaspora;

4. Associating the actions of institutions responsible for the diaspora field with national development priorities. In an ideal context, these institutions carry out activities that directly support and complement national development plans. When, however, the priorities and capacities of the diaspora do not coincide with the national development plans, the government should give priority to the needs expressed in the country of destination (Agunias & Newland, 2012, p. 71-99).

3.2 Models of interaction between the Republic of Moldova and its diaspora

The Republic of Moldova is a country in which migration has a significant influence at both the local and national level, mostly being included in the category of countries of origin of migration. For a long time, although the exodus of the population had become more and more obvious, migration was not a topic of interest for the political class in the Republic of Moldova. The first presidential decree regarding citizens of the Republic of Moldova living abroad was issued in 2005², and some policies regarding the diaspora were only found for the first time in the government's activity program for 2013-2014. The establishment in 2001 of the Migration State Service with the aim of developing and promoting migration policies in the country, was proof of the Chisinau government's awareness of the importance of the migratory process for development. In 2005, was established the structure of the first Coordinating Council for the support of people originating from Moldova.

Like most states that intend to capitalize the interaction between the diaspora and the state of origin by maintaining in the state of origin a dedicated organizational structure (ministry, agency, association, etc.), the Republic of Moldova founded in 2013, under the direct coordination of the Prime Minister - the Office for Diaspora Relations. According to the „Diaspora-2025" Strategy, this is precisely the moment when, at the national level, the process of implementing the state policy in the field of relations with the diaspora was outlined. However, the responsibilities in the field of migration have never belonged to a single ministry or administrative structure. Resulting from the availability and competences of human resources, the responsibilities outlined by the normative acts have always been shared between various ministries, public authorities or specialized institutions.

In the last 10 years, a series of programs in the field of migration were implemented in the Republic of Moldova, which were oriented from reducing the negative effects to maximizing its positive contribution. For example, until 2013, around 200 projects and programs dedicated mainly to labor migration and combating human trafficking were implemented in the country, while starting with 2014, national programs focused on capitalizing on development opportunities of migration and attracting remittances into the

² Decree of the President of the Republic of Moldova regarding the support of persons originating from the Republic of Moldova domiciled abroad and collaboration with them, no. 1638-II of August 30, 2000, published in the Official Gazette of the Republic of Moldova of September 5, 2000, no. 115.

economy (National Strategy „DIASPORA-2025”, 2016).

With a population of over 1 million citizens settled abroad, the Republic of Moldova ranks 11th in the world in terms of the number of emigrants compared to the number of population. Therefore it is necessary that the policies and interventions of the state promote the circular nature of the contributions and productive results of migrants and of the diaspora not only at the national level, but, according to the hierarchy presented above, including at the local level (Maciuca, 2019, p.16).

Table 1. Institutional assignment of responsibilities in the field of migration and diaspora in the Republic of Moldova

No.	Institution	Responsibilities
1.	Ministry of Foreign Affairs and European Integration	Protection of the rights of citizens of the Republic of Moldova outside the country, defining the visa policy, offering consular services, etc.
2.	Ministry of Labor and Social Protection; The National Employment Agency	Elaboration of policies regarding labor emigration/immigration, ensuring the social security of migrant workers, developing pre-emigration, post-emigration, (re)integration policies of migrants, etc.
3.	Ministry of Interior (Migration and Asylum Office, Border Police)	Coordination of issues related to immigration, the status of foreign citizens, asylum issues, border management, combating illegal migration, etc.
4.	The Ministry of Economy	Development of investment policies, attraction and capitalization of remittances.
5.	Ministry of Education and Research	Elaboration and implementation of policies regarding emigration of teaching staff, recognition of diplomas obtained in other countries by citizens from Republic of Moldova.
6.	Ministry of Health	Implementation of policies regarding the emigration of medical personnel, compulsory medical assistance insurance, etc.
7.	Ministry of Culture	Supporting the cultural programs of the diaspora, promoting national cultural values in the diaspora and holding cultural events.

Source: Elaborated by the author, based on „Diaspora-2025” Strategy and Haruța, C., “Relațiile statului de origine cu migranții”

Due to the involvement of the diaspora in social, political, cultural but especially economic aspects, the institutional structure of the Republic of Moldova in the field is currently quite well defined. Among the most active actors in the process of managing the opportunities generated by the phenomenon of migration are the Local Public Authorities (LPA). Through their actions, the diaspora's predisposition to involvement is directly oriented towards local development projects of the migrants' home communities. Starting from the premise of turning emigration into a factor for the development of the communities of origin, UNDP Moldova launched in 2015 a project whose goal was to establish connections between the members of the diaspora and their localities of origin and maintain their involvement throughout the chain to the local development process in particular, in order to improve social services (water supply, social services, education and health), as well as access to various opportunities generating financial benefits (reemployment in the labor field, supporting business development). The project was

implemented in partnership with the Government of the Republic of Moldova, local public authorities, local non-governmental organizations, the private sector, the population, including migrants from the target communities. The approach of the phenomenon is based on 5 pillars and is a model that can be easily replicated in other countries, respecting the local particularities:

Pillar I	Pillar II	Pillar III	Pillar IV	Pillar V
<ul style="list-style-type: none"> • Integration of emigration at the institutional level 	<ul style="list-style-type: none"> • Integrating emigration into the development of local policies 	<ul style="list-style-type: none"> • Shaping diaspora involvement through the creation of native associations 	<ul style="list-style-type: none"> • Supporting meaningful diaspora interventions through joint local projects 	<ul style="list-style-type: none"> • Replicating and ensuring model sustainability

Figure 1. The five pillars approach in order to capitalize emigration for sustainable local development

Source: Elaborated by the author, based on “Diaspora involvement in local development”, Operational guide based on the experience of the Republic of Moldova, UNDP Moldova

As a result of the implementation of the first stage of the project (2015-2018), with the involvement of approximately 40 thousand migrants, 300 thousand inhabitants of 38 localities benefited from financing in the amount of \$3.3 million for the implementation of 55 different projects. Another 101 localities in the country subsequently initiated the replication of this model of managing the benefits of migration. Currently, the II stage of the project is underway (2019-2022) with a planned budget of \$6.6 million, for 35 beneficiary localities in the country (UNDP Moldova, 2022; Maciuca, 2019, p.18).

There is a growing recognition of the fact that diasporas have an important role not only from the perspective of the contribution they can bring to the economic development of the country of origin, but also within the international relations between the states involved in the migration flow. Being in fact between two countries, the members of the diaspora can influence from the perspective of certain issues that concern them, both the internal politics of their state of origin, the politics of the host countries, and the bilateral relations between these two.

In the case of the Republic of Moldova, one of the ways of supporting and collaborating the state with the diaspora and expanding contacts with citizens settled abroad are the Diaspora Congresses - congresses intended for migrant people originating from the Republic of Moldova, held in Chisinau once every two years, starting from 2004. These events represent the first public policy instruments that state representatives used in relation to migrants and the diaspora, even during the period when the importance of the migration phenomenon was not officially recognized. During the congresses, topics of interest of members of the diaspora are regularly addressed, such as the consolidation of consular services and the expansion of diplomatic missions in countries with a significant community of citizens originating from the Republic of Moldova, the strengthening of relations between the state and members of the diaspora and their involvement in social,

cultural, economic and politics life in the country, the recognition of the Moldovan diaspora in promoting the European integration of the country, the creation of employment and businesses opportunities in the country, the implementation of projects intended for young people who have gone to study abroad, etc.

Although during the 9 editions of the Diaspora Congress there were opinions that appreciated the role of these events as symbolic, expressed through the state's attempt to expose its position and coagulate the diaspora through activities aimed at maintaining national identity, however public interest in these events has been maintained and even increased over time (for example, the first edition of the Congress was attended by 120 people from the diaspora, while in the 2021 edition, the official opening event was watched online by almost 80 thousand people) (Report on the organization and conduct of the Diaspora Days and the Diaspora Congress, 2021, p.8).

Conclusions

1. Currently, the diaspora represents an important actor at the international level, which has the ability to influence the course of processes in various fields of activity in the country of origin or destination, as well as the availability to establish, promote and maintain ties with the state of origin for the purpose of achieving some social, economic, cultural or political objectives;

2. In order to capitalize the potential of the diaspora in achieving development goals, the governments of the states involved in the migration process use various measures to implement a favorable climate for relations with the diaspora, including the establishment of various specialized institutions on the territory of the countries of origin or destination;

3. Depending on the policies to be promoted by the state, the institutions specialized in managing the relationship with the diaspora are hierarchically classified on several levels that are directly proportional to the institutions' ability to have independence in assuming certain commitments towards the diaspora and to benefit from support from the state leadership;

4. Considering the fact that often the efficiency of these institutions is conditioned by the availability of financial, human, technical or political resources from the country of origin, it is necessary that during the implementation of their policies, the need to respect certain stages and consecutiveness of certain actions should be taken into consideration;

5. In the case of the Republic of Moldova, the policies in the field of migration and diaspora, as well as the methods of interaction between the state and the diaspora, most often have as their primary objective the maintenance of the symbolic connection with the state of origin and the cultivation of the spirit of belonging, by encouraging the development of various cultural activities intended for migrants and, respectively, the subsequent fulfillment of some social and economic objectives by carrying out actions with an adequate and relevant general content;

6. If the state's forms of interaction with the diaspora do not fully cover all the needs invoked by the communities established in diaspora, then the maximum potential they

generate for the state of origin tends to remain untapped. In this regard, many developing countries around the world seem to still have a lot to learn.

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IMPLICATIONS OF COVID-19 ON TEXTILES INDUSTRY IN INDIA - DISCOVERING ISSUES AND CHALLENGES ON DEMAND AND SUPPLY SIDES

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Abstract: *The unexpected COVID-19 outbreak has threatened the world and derailed the socio-economic lives of people. In this context, this study is aimed to discuss the implications of COVID-19 in textiles sector in India along with major issues and challenges on demand and supply sides. This study determines the impact of crisis which affected demand and supply in textiles and fashion industry. COVID-19 has several implications for this industry, be it from demand or production. Its presence is observed in different aspects of the industry. This study uses secondary data collected from various sources like studies published in peer-reviewed journals. This study focuses on the need to think differently to deal with this unexpected crisis. Relaxation of tax compliance rules and deadlines, especially for small-scale segments is one of the potential solutions, so that the conditions of customer demand are not affected directly. In addition, more comprehensive financial relief package could be announced for textiles sector, considering the export- and labor-intensive processes to stem the adverse effects of pandemic. Rebates on exporters could be the next major step against the remission of taxes or duties on exports. This study was conducted during the COVID-19 crisis. More studies would be needed in post COVID era to generalize the findings. The combative measures and actual impact may be evolutionary and dynamic. The analysis focuses on the “out of the box” thinking to deal with unexpected crisis, but it may have different aspects to be discussed as the crisis unfolds. There is a lack of significant research on the impact of COVID-19 on textile industry in India. This study could be the stepping stone for researchers to study the impact on textiles sector and help policymakers to prepare for unexpected crises in future.*

Keywords:– textiles sector, COVID-19, textiles and fashion industry, demand and supply sides, textiles industry in India

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Introduction

Textiles sector in India has been one of those industries which were worst hit by COVID-19. In terms of socio-economic prominence of textiles sector, it is second to agriculture in Indian economy and it deserves ample attention in policymaking and academic circles. This study is the novel attempt to fill the gap in academia on the issue of relationship between COVID-19 and textiles sector in India. Given the depth and multifaceted impact of

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such influences, it has been important for the industry, government, and other stakeholders to develop important and innovative ways to contain the adverse effects of crisis.

Failing to do so could affect millions of jobs and livelihoods and affect economic growth of the nation. Though the actual effect and preventive measures may be active whenever needed, the study discusses the different effects of COVID-19 crisis. The rapid spread of COVID-19 has affected the world and posed enormous economic, environmental, health, and social implications to the population. This pandemic can be responsible for posing most extreme effects that mankind has faced in recent years (Chakraborty & Maity, 2020). This outbreak has disrupted the supply chain across Southeast Asia. The economic depression can be seen across the world but developing countries are facing deepest effect.

Like other countries in the world, India is constantly reeling under the crisis on an unexpected scale. The virus has affected more than 2,836,925 people across the nation and killed up to 53,866 people till August 2020. When it comes to global figures, over 22.41 million were infected and 787,701 people were killed by the infection (Khurana, 2022). These figures show the gravity of this pandemic. Even though it was not the first pandemic that affected mankind, it was supposed to be the worst in terms of socio-economic effect and its health impact in India and across the world, especially due to globalization. The COVID-19 outbreak is a threat that has derailed the commercial and trade activities for several years and also caused the loss of jobs for millions. In this context, this article discusses some of the implications, issues, and challenges of COVID-19 in textiles industry in India, which is one of the key industries for trade and jobs in India.

Textiles and fashion industry has been put into a total standstill due to a series of lockdowns in India. Trade deficits, unemployment, slow growth patterns, poverty, shutdowns of factories, shutdown of retail stores, shortages, and labor migration are some of the biggest challenges for textiles sector (Sen et al., 2020; Sahoo & Ashwani, 2020). Production may decline up to 20% from 5.5%, imports to 25% from 17.3%, exports up to 20.8% from 13.7%, and net value of MSME up to 5.7% from 2.1%, if COVID-19 affects constantly (Sahoo & Ashwani, 2020). The industry has never imagined such a long shutdown during the initial days of pandemic. Even worse, demand had also declined steeply for the first time.

1. Literature review

COVID-19 has caused a huge economic distress, derailed several systems, and left the world out of breath. Kaur (2021) has done an exploratory study to reveal the issues related to business that textile businesses face in Punjab during the pandemic. The data was gathered from 123 textile entrepreneurs in Punjab. It is observed that entrepreneurs faced some of the serious business issues like radical impact on future marketing programs to get new orders and working capital. However, most of the businesses were digitally capable to have online orders and digital knowledge to grab opportunities, such as manufacturing PPE (personal protective equipment) kits and N95 masks. It is probably the first attempt to determine the early effect of pandemic on textile sector in Punjab.

Being asylum seekers and poverty have two-fold impact on migrants. A lot of programs cannot help the poor because they don't have residential and identity proofs. Despite the fact that they are citizens, they cannot achieve their social, economic, and political rights, which is a serious matter as they are deprived of their basic citizenship rights. Sudden eruption of crisis due to migration is the result of COVID-19 outbreak which reminds of the seriousness of the matter. Bhagat et al. (2020) explains how acknowledgement of livelihood and migration can help form a mitigation strategy to deal with social and economic effect of the pandemic.

During COVID-19, the education status of India has been standstill and will constantly be in the matter of doubt until it becomes a serious threat to mankind. During the state of chaos and doubt, several factors along with classroom teachings like placement/employment rates at several institutions, organizational routines and other factors might be affected in the pandemic. Currently, "Availability and Accessibility" are two golden A's which are disrupted. Almost all educational institutions will face adverse effects of COVID-19 calling for revolutionary policies to stabilize the nation. Dhanalakshmi et al. (2021) conducted a study to bring ahead the problems and impacts while solving the problems which can be helpful for future studies.

Novel COVID-19 pandemic led to the nationwide lockdown. Gopalan & Misra (2020) discussed health, socio-economic and national healthcare issues after lockdown while focusing on low "socio-economic stratum (SES)" population. Though the nationwide lockdown has affected all social segments and caused financial losses, the domino effect could result in huge setbacks on healthcare, health, and nutrition to achieve success. There is a need to rebuild all "National Health Programs" along with economic measures to avert the surge of airborne diseases.

COVID-19 pandemic has drastically affected the economy of India and across the world. It has affected the nation significantly, especially with serious issues due to lockdown on several sectors of the country. MSMEs are the worst hit sectors in India. Some of the worst-hit sectors were food processing, textile, hotel, exports, and furniture. Hariharan et al. (2021) determined the effect of COVID-19 on MSMEs in Kerala from five different sectors which are significantly affected to know the effect of quick responses from the governments and relief funds it has announced. Data was collected from 26 MSMEs in Kerala with telephone and direct interviews. Case study was used to analyze the data. It is observed that all sectors had financial crunch and they were extremely affected by the challenges due to pandemic and it will constantly face a lot of issues. It is important to plan the activities strategically to gradually bring back the operations and plan for changes.

The business model of India relies on growth on the basis of exports (Mishra, 2020). And it could face a huge effect on growth because of country-wide lockdowns. This paper delves deeply into the implications of COVID-19 and demand-side factors and supply-side factors and their combined effect on textiles industry. A huge body of literature focused on the impact of COVID-19 on various sectors (Sahoo & Ashwani, 2020; Sen et al., 2020;

Panigrahi et al., 2020). This study goes a step ahead with issues and challenges on demand-side and supply side.

Research Objectives:

- To analyze the impact of COVID-19 and issues and challenges on demand-side and supply side
- To discuss how digitalization can be helpful for textiles industry during COVID-19

Research Questions:

- How COVID-19 affects textiles sector and what are its challenges on demand and supply sides?
- How digitalization can be helpful for textiles industry during COVID-19?

2. Data and Methodology

In order to fulfill the above research objectives, evidences have been compiled in research academia to deliver some managerial solutions to the stakeholders. This study is conducted using secondary data to know the impact of pandemic in textiles industry. The researcher has performed literature search to analyze the impact of COVID-19 outbreak in textiles industry. The secondary data was collected from documents of various government organizations like Ministry of Textiles, AEPC, etc. and scientific databases like Web of Science, ScienceDirect, and Scopus.

Proper literature survey was conducted to find relevant studies published in peer-reviewed journals like EEJRS. A total of 97 studies were found with relevant keywords like COVID-19, textiles industry in India, textile industry challenges, implications of COVID-19 on textile sector, etc. Out of these studies, 57 studies were sorted, which are relevant. The inclusion criteria includes relevant studies, English language, complete research papers, and studies without grammatical mistakes.

3. Data Analysis

4.1. Impact of COVID-19 and Issues and Challenges on Demand-Side and Supply Side

The slump of sales because of mandatory nationwide lockdown is probably one of the significant impacts of COVID-19. Though potential customers and businesses were following social distancing rules, the overall sales of clothing and textiles were seriously affected, which was the most common impact. Efficacy of online retail has been the matter of arguments over a period of time for affecting textile business. However, online retail was also not possible because non-essential goods and services were restricted for online delivery. Hence, the online trades were also not possible as an alternative to save the sector from the economic crisis (Majumdar et al., 2020).

The production segment of textiles industry in India is another segment which was hit by COVID-19. With nationwide closures of textile factories as mandated by the government as they don't fall under "essential" categories of services and goods, textiles industry has

been through the worst crisis in history. Textile industry faced huge disruptions in supply chain also in China, Vietnam, and Bangladesh, due to cancelled orders and challenges in ordering raw materials from the source countries (Javorcik, 2020; Bown, 2020).

Reduced import and export transactions with the rest of the world is another fallout on the textiles sector. With reduced demand across the world, a lot of clothing brands have witnessed a rise in inventories as well as low values and volumes of trade. Although the supply of input may improve from China over the mid-term, major export countries for India, including the likes of the EU and US are also not exempted from the crisis. It has significantly affected their required orders for clothing, especially from large-scale global exporters, such as India (ILO, 2020).

When it comes to falling global sales and production, it is possible that wage and employment status of textiles sector had a negative impact for employees. Failing to pay wages and closures of factories are possibly the serious threat to socio-economic health of textiles staff. In addition, textiles sector is a major source of employment for women. When it comes to socio-economic growth, the government might not be able to afford to ignore it, given its value for women empowerment. There is also a lack of proper social security, which is another problem for the worsened and deprived communities working on the textiles sector, as most of these people are employed directly or indirectly in an unorganized sector (Majumdar et al., 2020; Anner, 2020; Narula, 2020).

Table 1 and Table 2 explain such challenges briefly. Table 1 illustrates the triple effects of consumer demand, social distancing, and exports, which are major implications for textiles industry in India (demand-side). On the other side, Table 2 explores the impact of pandemic on textiles sector (supply-side).

Table 1. Impacts as well as Issues and Challenges on Demand-side

Factors	Impacts	Issues and Challenges
Social Distancing	Lockdown of key market areas like retail stores and malls	Declining interest of consumers in shopping textiles due to fear of risk and high safety concern
Demand	Social distancing, lower employment, and government restrictions and wages on non-essential items	Complete effect lasted several months.
Exports	Vast economic fallout for textiles and other sectors which depend heavily on exports	Significant impact on export side because of export restrictions on important raw materials used and depressed conditions of global demand

Source: Tareque & Islam (2020)

As mentioned in Table 2, the factors related to impact of COVID-19 on supply side like employment, production, inflation, and supply chain have been major implications for textiles sector in India. Combined with the factors on demand side like consumer demand/behavior, social distancing, and exports, COVID-19 has multiple effects in textiles sector as these factors are interconnected.

Though social distancing has been known as the factor on demand side for this paper, it has consequences in supply for its effect on production like manufacturing activity was suspended because factory workers were staying at home. In addition, employment was affected because employees were ordered to stay at home because of social distancing or even fired. Supply chains were affected because of disruption coming with social distancing and lockdown. Prices were increased of raw materials and imports because factories were closed due to social distancing, resulting in disruptions in manufacturing and supply chain in source nations. It ultimately increased the price of raw materials for destination countries. These relations are observed in various other factors and textiles industry in India. Due to reduced demand in export countries, tough competition from other textiles companies, and existing challenges due to technological backwardness, COVID-19 has had manifold negative impact on the sector, which calls for the right policy measures.

Table 2. Impacts as well as Issues and Challenges on Supply-side

Factors	Impacts	Issues and Challenges
Employment	Labor welfare was significantly affected due to factory shutdowns.	COVID-19 has worst hit employee welfare because of losses of jobs on a large scale and wage cuts in textiles and other sectors because of reduced economic outlook.
Production	Production activities halted because of strict norms of social distancing.	Indian textiles sector doesn't sustain well because of halted manufacturing as it affects domestic stocks in commodity, exports, and employees significantly.
Supply Chain	Closures of manufacturing have disrupted supply chain for various textiles manufacturers like China.	Garment manufacturers must especially look for alternative sources.
Inflation	Prices of "manmade fibre (MMF)" and other vital raw materials have been hiking.	Price hike of key resources dampens the cost effectiveness of vital importers of input like India and also its competitiveness in garment exports across the world.

Source: Pandey & Pal (2020)

From being a net importer in value of Rs. 1058 Cr in technical textiles in Financial Year 2020, India has transitioned to become the net exporter of textiles valued Rs. 2998 Cr in Financial Year 2021. 207 HSN Codes have been notified and classified in January 2019 for ease of doing business in textiles, according to the report "Textile Industry: Trends and Prospects" by an RBI and SEBI recognized credit rating organization, "Infomeric Valuation and Rating Pvt Ltd". Since COVID-19, textile industry in India has been on the verge of recovery. In FY2020, textiles industry peaked to \$106 billion, while it fell down to \$75 billion in FY2021 (Figure 1).

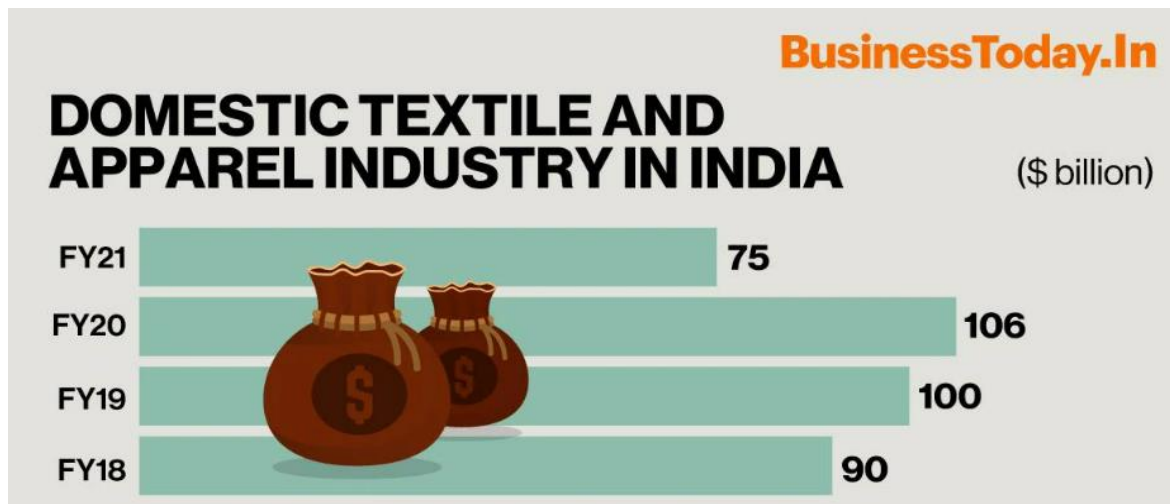


Figure 1. Domestic Textile Industry Before and after COVID-19

Source: “India Brand Equity Foundation (IBEF)”

4.2. How Digitalization can be Helpful for Textiles Industry during COVID-19?

There has been a significant rise in demand for digitalization during the pandemic in the value chain. When companies have suffered lockdowns, digitalization has boosted some of the online firms like Amazon, Netflix, and Google to grow rapidly and move at the center stage (Klein, 2020). According to Pandey & Pal (2020), companies should adopt digitization in their innovation strategies. While education, banking, and healthcare industries are rapidly adopting digitalization, why should textile and fashion industry be left behind? Digital technologies have disrupted the traditional methods of selling clothes (Sun & Zhao, 2018).

Lead time could be reduced by digitizing the process of manufacturing. It can reduce constant maintenance, manufacturing cost, machine breakdown, and lead to a synergetic effect of production (Tareque & Islam, 2020). A business model has been developed to digitize this process named “value chain digitization” to digitize each level with best investments (Figure 2).

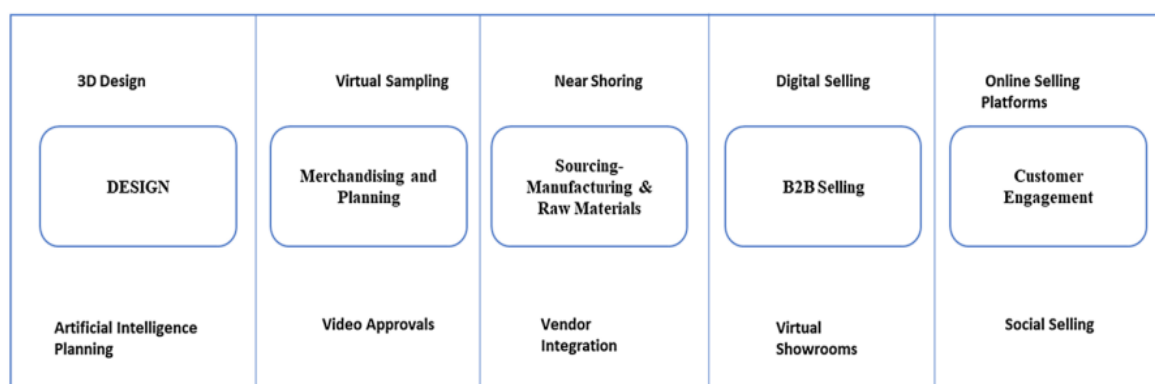
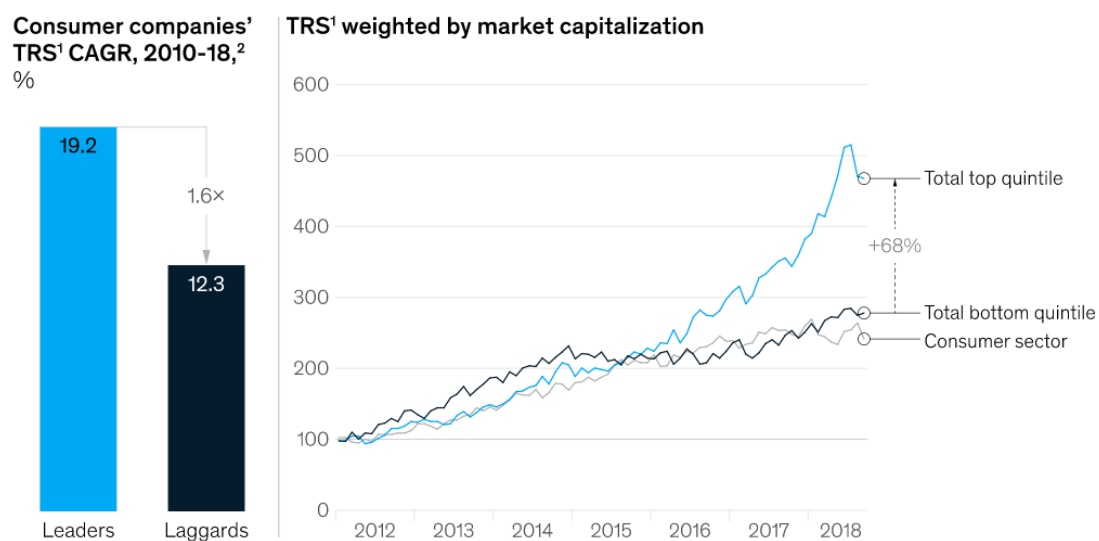


Figure 2. “Value Chain Digitization” model

Source: Tareque & Islam (2020)

There are several stages involved in fashion product manufacturing and supply chain requires a strong integration (Ha-Brookshire, 2017). From the design level, computer-aided design has been helpful to save the lead time. However, this 2D process should be turned into 3D design. A garment is divided into two zones – fashion and fit (Kim & Park, 2007). In the “fit zone”, body scan data is digitized for optimum fit and best silhouette. In the “fashion zone”, the aesthetic appeal of the garment is determined for the users to design garments with several silhouettes.

Machine learning or AI could predict fashion trends to ease the design process with greater smoothness and precision with the collection of market and user data. It is also possible to develop virtual models on the basis of generative algorithm (Sun & Zhao, 2018). Planning and merchandizing are very time-consuming and critical processes. This way, 3D model of fit and design on avatar or model can avoid the tedious process of generating physical sample, travel cost, pollution, and wastage of fabric for sustainable production (Jhanji, 2018; Lee & Park, 2017; Hwang Shin & Lee, 2020). Since online sales is tremendously rising in India, 3D try-on can boost buying process and ensure fitting of the garment (Song & Ashdown, 2015; Liu et al., 2017). A lot of 3D try-on applications like “Lectra 3D Prototype”, “Clo3D”, OptiTex”, etc. could be the part of value chain (Sayem et al., 2010).



¹Total returns to shareholders.
²S&P 500 index, consumer sector.
Source: Capital IQ, McKinsey analysis

Figure 3. Digital and Analytics Leaders Beating Competition

Source: McKinsey & Co.

According to McKinsey, companies which were analytically and digitally leaders before the COVID-19 crisis outperformed their competition which failed to build strong analytics and digital presence (Figure 3). Companies with online sales of 30% to 40% of total sales are analytics and digital leaders which have significantly digitized their value chain. They have competitive edge today, while companies below 20% of total sales from online sources are laggards with low digitization. They can make “all in” bet on analytics and digitization and gain market share.

5. Results

Manufacturers were importing finished goods and raw materials from China and other neighboring countries. Lockdown disrupted the entire supply chain for textile sector. There was a lack of raw materials as the stores were going out of stock. Fashion industry is highly unpredictable due to rapidly changing trends and consumer demands, leading to lack of sales probability (Brusset & Teller, 2017). Sourcing finished products and raw materials have been the vital aspect of final profits and cost advantages are very important for low-cost economies (Baraldi et al, 2018; Macchion & Fornasiero, 2020; Tate & Bals, 2017). Most of the production in India moved out to neighboring countries for higher profits. Medium and small vendors suffered heavily during the pandemic due to lack of orders and lockdown restrictions.

It is the right time to mix local vendors in the value chain and secure the cash flow in the country. Large manufacturers must work with local vendors with improved IT infrastructure (Liu et al, 2016), supply chain (Huo et al., 2018) and relationship management (Wagner et al., 2018). It will help in circulating the money internally in the economy to stabilize financial crisis. Indian textile manufacturers should switch to virtual offices for buyers to choose the product with visual presentation (Sharma & Narula, 2020).

At the end of value chain, the consumer in India is very important especially during COVID-19 crisis. If companies target Indian customers with the right products, it is possible to handle the crisis as India is a densely populated country. India has over 4000 towns and cities and buying clothes is very common in tier-3 cities. Currently, only Amazon has managed to build the largest transportation network for common products in India. It presents a great opportunity for new ecommerce portals to make the most of local suppliers and reach untapped segment. Companies should further ease the process of buying decision to speed up their sales (Kim, 2020).

Online portals and social media influencing are the best fit when it comes to sell clothing. Social media may not be useful around a few years ago. These days, online purchases are made with interactions on social media (Das & Mandal, 2016). The trend of social media doesn't just provide a great shopping experience, but also leads to a great impact in aesthetic experience (Silvestri, 2020). India has a huge population of Gen Y and Gen Z. So, they are more likely to adopt social media and online shopping. According to Shen et al. (2017), there is a great impact of social influence and supply chain delivers great online shopping experience in fashion industry. The value chain in India should work in that direction to boost its presence in India.

However, digitization never means abandoning existing business models for Indian companies. On the other hand, they should combine their traditional models with latest digital business models to fulfill their future goals. India leads other emerging economies in technological advancement and competitive edge. Hence, digitizing the value chain is recommended to deal with this crisis.

Conclusions

COVID-19 crisis took too longer time to end than predicted and has almost hit the developing economies very hard. This study was aimed to analyze the challenges posed by COVID-19 on textile industry in India while discussing the sectoral connections, effects, and possible measures to cope up with this crisis. The textiles industry in India has been the worst hit industry by the pandemic. Even in pre-COVID era, textiles sectors suffered from both supply and demand-side challenges. Additionally, textiles sector stands second to agriculture in socio-economic contribution to the Indian economy. Hence, it deserves a comprehensive support to cope up with distress. Failing to do so can affect millions of livelihoods and employment, which will ultimately affect the economy.

Recommendation for Textile Industry in the Future

Fashion industry is highly unpredictable and several small and medium enterprises have heavily suffered due to COVID-19. Apart from seeking government support, businesses in textile industry should look for innovative solutions to stand out in competition with online players.

Digitization brings great opportunities for many industries, and textile is not an exception. This way, businesses in textile sector should adopt various digital mediums to attract customers and solve their problems.

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EMERGING TRENDS IN BUSINESS AND MANAGEMENT CONSULTING

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Abstract: *The article highlights the importance of business and management consulting field and its current trends, especially in the context of pandemic and worldwide changes. The author highlights the role of consulting in accelerating best practices in collaboration, flexibility, inclusion, and accountability to its clients in order to create a better future for all, and also includes a statistical analysis of the development of consulting on a global and European scale, outlining the most important indicators according to the nature of the services rendered, the locations of the clients, and the types of client's industries. The author argues that the trends show that consulting is becoming an increasingly important component of the business environment, and that the emergence of new economic sectors and professions will condition the need to develop new capacities and apply new managerial knowledge and tools, which will stimulate the growth of both consulting and related fields. The article provides data on the development of the consulting in the Republic of Moldova, including the difficulties faced by the companies. Author believes there is "room for growth" in the national consulting despite the fact that it is a young market marked by the challenges facing society and influenced by the small size of the national economy. The author believes that the future of it will be profoundly influenced by remote work and digitization, service export, collaboration, and improved quality.*

Keywords: *business, management consulting, trends, collaboration, digitalization, industry regulation.*

JEL Code: *L84, O14, O19, O50, O52, Y10.*

Introduction

Over the past 50-60 years, the field of consulting, and especially business and management consulting, has been a source of fascination and inspiration for managers, businessmen, the media, politicians and academic society. Its allegedly phenomenal growth and presence within and "around" well-known corporations, and cooperation with governments of highly developed nations have sparked both praise for its management practices and positive effects on the economy, as well as criticism. One thing is certain: consultants have served as change agents in the society and continue to do so.

1. The significance of business and management consulting industry and its evolution.

1.1. The role of the consulting in the economy.

There are various definitions of consulting, which are reflected by the global organizations that oversee the industry. For instance, according to the European Federation

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of Management Consultancies Associations (FEACO) the added value is the "raison d'être" of any consulting activity, thus consultancy aims to optimize the resources of public and private sector organizations, to improve process efficiency, train employees, and select and integrate human and technological resources based on the unique needs of the respective businesses (European Federation of Management Consultancies Associations [FEACO], 2005). On the other hand, the International Council of Management Consulting Institutes (ICMCI) defines consulting as the activity of giving advice/ professional support to a certain group of people.

Management consultancy, on the other hand, is defined as "a set of multidisciplinary activities of intellectual work, within the field of management, which aims to create value or promote changes, by providing advice and proposing solutions, by taking into account actions or by producing deliverables" (International Organization for Standardization [ISO], 2017, p. 8).

Business and management consultancy, in the author's opinion, represents, therefore, qualified support/assistance services provided to the business environment, based on the independent vision and creative intellectual activity in the field of management, which typically includes analysis-diagnostic processes and the development of further recommendations in order to solve problems and improve business efficiency.

In this context, consultants are frequently labeled as knowledge carriers (Gammelsaeter, 2002), who give to their clients something they did not previously have - information, ideas, knowledge, ways to apply this knowledge in the practice (Legge, 2002), or as "transmitters" of management concepts, techniques, and practices (Glückler & Armbrüster, 2003; Fincham, 2007; Kipping & Wright, 2012). As a result, the significance of this branch in a country's economy is clear:

- Support and development of business environment. Consultants assist their clients in achieving high results or in overcoming critical situations and confrontations by selecting optimal and timely strategies, improving organizational structures, processes, and working methods, writing and implementing projects, exchanging experience and best practices, developing organizational capacities, etc.
- Contribution to the development of a collaborative society. Consultancy projects frequently combine expertise and resources from other sectors (for example, technical experts, legal experts, engineers, educational service providers, representatives of the academic environment, civil society, the public sector, etc.), resulting in inter- and intra-industry synergies. A collaborative and integrated approach like this maximizes the benefits of the infrastructure for the economy and the society.
- Contribution to the development of innovations and knowledge dissemination. Consultants assist clients in disseminating knowledge and providing access to methodologies and original thinking. Consultants are both innovators (bringing new knowledge) and validators (validating existing knowledge) (Bouwmeester & Werven, 2011).

- Catalyzing economic and social change. Consultants, in fact, facilitate, but also catalyze changes in organizations, at the industry level, and in the economy through their versatile role (providing information, knowledge, and expertise, developing innovations and offering new perspectives, validating managerial decisions, and providing support for obtaining resources for clients).

We also believe that the contribution of consultants to the "new normal" of today's economy, which, according to some world-class consulting firms, will be surprisingly different from what was considered normal not long ago (Sneader & Singhal, 2020), will be expanded and emphasized. They will work with industries in order to accelerate best practices in collaboration, flexibility, inclusion, and responsibility, as well as to focus managers on leadership and collaboration in order to create a better future.

1.2. The international evolution of consulting.

Despite the industry's relatively mature evolution, there is currently no agreement on how to define and calculate global consulting volume due to the wide variety of services provided and customer categories (i.e. by industries, size of organizations, focus on markets/regions, etc.). Various profile organizations (for example, ICMCI at the global level or FEACO at the European level), as well as the most representative research companies (for example, ALM Intelligence, Gartner, Source Global Research, etc.) use different methodological approaches to estimate consulting market size, which vary significantly. Some of them, for example, include services related to management consulting in these estimates, such as financial-accounting and audit services, or legal consulting services, and IT, while others estimate the volume that directly refers to management consulting.

The global consulting market has grown to a billion-dollar industry over the last few decades. Not only has it grown in size and international reach, but it has also gone through several professionalization cycles, becoming one of the most developed segments of the professional services industry. The data in the figure demonstrates the global evolution of consulting in five basic areas from 2011 to 2020.

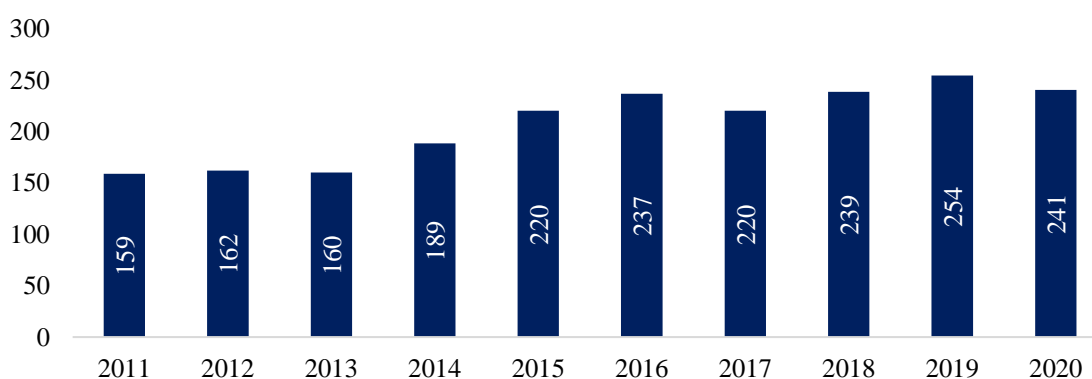


Figure 1. Global business consulting market, 2011 - 2020, billion EUR, 2011-2020, by turnover

Source: Developed by the author based on [Global consulting market, 2011-2016] (n.d.) & Mordor Intelligence (n.d.) data

The figure represents the contribution of over 2000 bln. EUR of the consulting industry to the development of the global economy over a ten-year period since 2011, represented by turnover, with an average annual growth rate of 5% (from 159 bln. EUR in 2011 to 241 bln. EUR in 2020), conditioned by globalization and intensive promotion of large companies, increased demand for consultancy due to donor-based and infrastructure projects, and increased services in the field of IT and automation. The recent 5% drop in the global market volume (241 bln. EUR in 2020) is the result of turbulence in various industries, exacerbated by the onset of the COVID-19 pandemic and changes in customer preferences.

Furthermore, a CAGR (Compound Annual Growth Rate) of 8.6% is projected from 2021 to 2027, according to the Maximize Market Research Report. According to international experts, the significant increase is also based on the growing need for businesses, particularly SMEs, to reduce costs in recent years and improve process efficiency.



Figure 2: Global consulting market and share of top-10 countries, bln. EUR, 2019

Source: developed by the author based on Statista Research Department (2022) data

The graph depicts the volume distribution of the global consulting market by country, with a turnover of USA of remarkable \$63.6 bln. EUR (or 25% of the total in the above figure). The gap between the other countries and the leader in the field is significant: the United Kingdom and Germany have approximately 4% (9.7 and 9.3 bln. EUR), followed by Australia, France, and China (2% - between 4 and 6 bln. EUR), with the rest of the countries having a share of less than 1.5%.

This disparity can be explained by the United States' significant contribution to the development of management theory and consulting practices against the backdrop of global crises and war, as well as the government's support programs for this industry. In 2018, for example, the US government spent \$25.27 bln. USD on management consulting industry support, resulting in 27813 contracts for 5609 companies. These contracts were worth an average of 4.5 mln. USD per company (Linchpin SEO, 2022).

Simultaneously, the UK faces competition in Europe from three countries: Austria, Germany, and Switzerland, collectively known as the DACH region. This region is currently positioning itself as a location for large management consulting firms. For example, the DACH region's management consulting sector was worth EUR 8.7 bln. in 2016.

With all of this, it is estimated that North America and the EMEA countries (Europe, the Middle East, and Africa) will have a 5% CAGR until 2026, accounting for around 80% of global consultancy volume. In contrast, Asia Pacific countries are expected to grow at a

faster rate (+10%), despite accounting for only 20% of total volume, followed by Latin America (growth of +4% and less than 4% the share) (Laffitte, 2022).

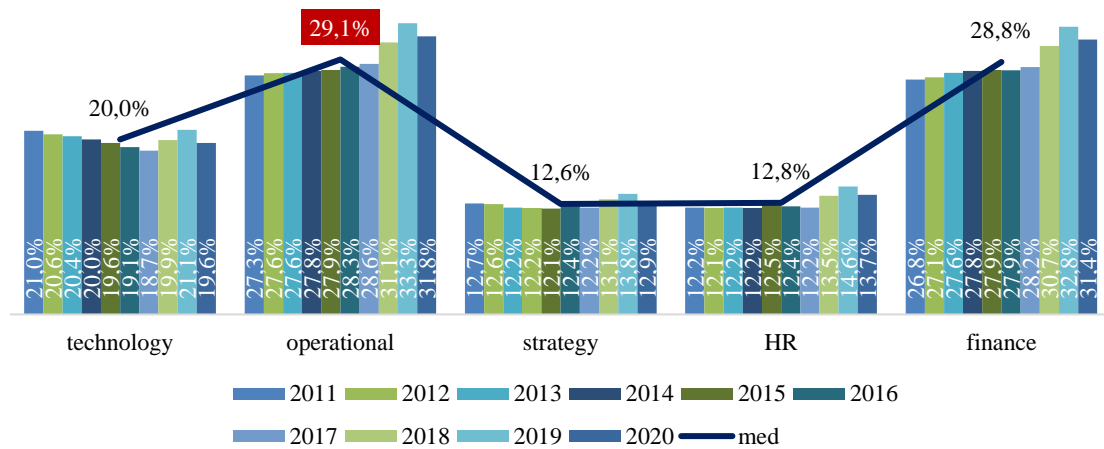


Figure 3. Global business consulting market: turnover structure, by services provided, %, 2011-2020

Source. developed by the author based on [Global consulting market, 2011-2016] (n.d.) & Mordor Intelligence (n.d.) data

The graph depicts the evolution of the global consulting market by service type, with shares of the total market (% of total) indicated for service segments (IT and technology consulting, operational, strategic, human resources, and financial consulting). The figure shows the dominance of operational consulting, reflecting the growing demand for automation, efficiency, standardization, and quality in recent years (on average, this segment's share is about 29%), and also the financial consulting (28.8% average share during the analyzed period), due to infrastructure and investment projects, the need for cost and resource optimization, and increasing consultancy for access to finance.

Given that strategic, human resources, and technology consulting are less accessible to SMEs due to price and geography (for example, the global market includes Africa and Latin America, where the emphasis is on financial and operational consulting), their market share ranges between 12 and 20%. Therewith, taking into account the trends revealed in major company analytic forecasts, these segments are expected to grow, particularly in digitalization, outsourcing, IT management, artificial intelligence, blockchain management, and other relevant areas.

It should be noted that there are approximately 700,000 consulting firms operating on the global market (Maximize Market Research, 2022), the most prominent of which are: Deloitte Consulting, PwC, EY, KPMG, Accenture, IBM, McKinsey, Booz Allen Hamilton, The Boston Consulting Group, Bain & Company, Capco, Capgemini Consulting, CGI, Cognizant Technology Solutions, Ernst & Young, Fulcrum Worldwide, FTI Consulting, Grant Thornton, Hay Group, HCL, Axon, Hewitt Associates, Hitachi Consulting, whose development trends are the basis of estimates of the global market evolution.

1.3. The evolution of consulting in Europe.

The FEACO organization presents European market statistics, which are compiled annually from the profile associations in 13 countries: Austria, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Romania, Slovenia, Spain, Switzerland, and the United Kingdom, which account for roughly 80% of European GDP. The indicators in the table show the average annual growth rate of 7.2% of turnover in consulting services, which reached 80426 mln. EUR in total and an average of 6187 mln. EUR per country in 2019. At the same time, employment in the field is increasing at a 4% annual rate (out of a total of 403 thousand employees, 86% are experts directly involved in the consulting process). The average expert earns EUR 161 thousand, and approximately 22% of the services provided are exported (with 12.6% staying in the EU).

Table 1. European management consulting market, 2017 - 2022, main indicators

Turnover	average UE	total UE
<i>2017, mln. EUR</i>	5,231	68,000
<i>2018, mln. EUR</i>	5,688	73,939
<i>2019 forecast, mln. EUR</i>	6,187	80,426
<i>total</i>	17,105	222,365
<i>average</i>	5,702	
<i>2017/2016, %</i>	7.2%	
<i>2018/2017, %</i>	7.3%	
<i>2019/2018, %</i>	8.7%	
<i>2020/2019, %</i>	0.3%	
<i>2021/2020, %, estimated</i>	9.6%	
<i>2022/2021, %, forecast</i>	10.1%	
<i>average</i>	7.2%	
Number of employees, 2018	30,999	402,984
<i>% experts</i>	86.3%	
<i>% employees</i>	13.7%	
Turnover /expert/year (average 2017-19), EUR	160,885	
Export, % from total turnover	22.0%	
<i>% in EU</i>	12.6%	
<i>% outside EU</i>	10.0%	
Employment rate		
<i>average 2017-2019, %</i>	5.1%	
<i>2020/2019, %</i>	2.4%	
<i>2021/2020, %, estimated</i>	4.6%	
<i>average</i>	4.0%	

Source: developed by the author based on Cerruti; Borra & Appolloni (2019, 2020, 2022) data

Germany, the United Kingdom, and France had the best results, with an average annual turnover of 7-30 thousand EUR. At the same time, the top three countries in terms of turnover per employee differ, with Switzerland, Germany, and Finland all having more than 220,000 EUR per year.

However, the recent pandemic has had a smaller impact on the European management consulting industry than on the general economy: in 2020, consulting turnover fell by 2.3% compared to a -5.2% drop in GDP, and consulting employment remained stable (+0.3%) compared to a -0.5% drop in general employment. Management Consulting turnover rebounded quickly in most European countries in 2021 and was higher than in 2019 with an impressive growth rate (+11.5%) and in 2022 (+9.9%) (European Federation of Management Consultancies Associations, 2022, p. 4).

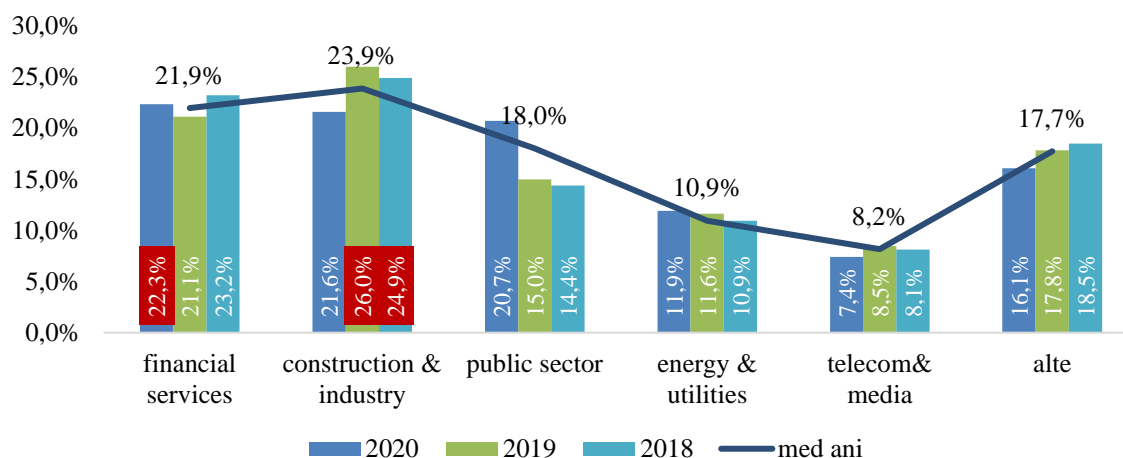


Figure 4. Evolution of the European management consulting market: breakdown of turnover/employee by customer industries, %, 2018-2020

Source: developed by the author based on Cerruti; Borra & Appolloni (2019, 2020, 2022) data

As in the case of the global market, digital transformation is driving positive trends in Europe as well. Thus, consulting in technologies is the leader (21.3% average over three years in the total of services), but strategic consulting is also rapidly developing (20.1%), highlighting the way in which consulting firms have assumed the role of contribution to the advancement of its clients' strategic transformation processes: during the pandemic, radical changes in the market and various social scenarios pushed many markets and clients to request more advice in terms of strategic transformation processes: during the pandemic, radical changes in the market and various social scenarios compelled many markets and clients to seek additional strategic repositioning advice.

France, Hungary, and the United Kingdom have the highest share of technology consulting (more than 26%), while Denmark, Austria, and Romania have the highest share of strategic consulting (more than 21%). The presence of professional associations, such as FEACO and ICMCI, which actively promote international certifications and the need for strategic thinking among the top management elite of the major industries, contributes to the concentration of strategic consulting in Europe.

In contrast to the global market, operational and financial consulting is lower in Europe compared to the other two mentioned above and obtain values of 18.4 and 10.7%, respectively, as a 3-year average share. The highest values are in Germany - over 40% in operational consulting, due to the high demand for automation and consulting in

automotive industries, Greece and Slovenia (over 20%), as well as Romania and Slovenia - over 20% for financial and risk consulting.

HR consulting and change management have grown in importance during the pandemic, owing largely to new working methods and techniques, mostly online and remote, with a three-year average share of 12.4% and the top countries - Finland, France, and the United Kingdom (over 17%). (Table 2)

Consulting in sales and marketing, on the other hand, has an even lower weight - 7.9% on average over three years, driven primarily by demand from Finland, Denmark, and Romania - more than 13%. (Tabel 3)

Table 2. Evolution of the European consulting market by country and type of services (technology, operational, strategic and HR & change consulting), %, 2018-2020

	technology				operational			
	2020	2019	2018	avg. year	2020	2019	2018	avg. year
Austria	4.5%	5.1%	7.9%	5.8%	16.1%	16.5%	16.9%	16.5%
Denmark	n/a	17.0%	17.0%	17.0%	n/a	15.0%	15.0%	15.0%
Finland	n/a	15.0%	15.0%	15.0%	n/a	15.0%	15.0%	15.0%
France	32.0%	28.0%	18.0%	26.0%	13.3%	14.0%	16.0%	14.4%
Germany	22.4%	21.8%	21.8%	22.0%	40.6%	40.5%	40.6%	40.6%
Greece	18.0%	16.0%	17.0%	17.0%	22.0%	28.0%	20.0%	23.3%
Hungary	51.0%	47.0%	45.0%	47.7%	9.0%	14.0%	16.0%	13.0%
Italy	23.7%	22.2%	21.8%	22.6%	13.7%	13.8%	14.1%	13.9%
Romania	16.0%	6.0%	8.0%	10.0%	15.0%	9.0%	16.0%	13.3%
Slovenia	n/a	21.0%	18.0%	19.5%	n/a	24.0%	28.0%	26.0%
Spain	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Switzerland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	24.0%	34.0%	36.0%	31.3%	9.0%	13.0%	12.0%	11.3%
average	24.0%	21.2%	20.5%	21.3%	17.3%	18.4%	19.1%	18.4%
	strategy				HR & change			
	2020	2019	2018	avg. year	2020	2019	2018	avg. year
Austria	20.0%	18.9%	31.7%	23.5%	15.9%	13.7%	17.7%	15.8%
Denmark	n/a	24.0%	24.0%	24.0%	n/a	13.0%	13.0%	13.0%
Finland	n/a	20.0%	20.0%	20.0%	n/a	20.0%	20.0%	20.0%
France	18.3%	19.0%	21.0%	19.4%	17.0%	19.0%	20.0%	18.7%
Germany	19.2%	19.0%	18.9%	19.0%	12.0%	13.0%	13.0%	12.7%
Greece	16.0%	22.0%	23.0%	20.3%	6.0%	6.0%	5.0%	5.7%
Hungary	18.0%	20.0%	21.0%	19.7%	5.0%	6.0%	7.0%	6.0%
Italy	17.0%	16.5%	16.8%	16.8%	7.7%	7.9%	7.9%	7.8%
Romania	30.0%	9.0%	25.0%	21.3%	10.0%	6.0%	4.0%	6.7%
Slovenia	n/a	20.0%	21.0%	20.5%	n/a	13.0%	13.0%	13.0%
Spain	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Switzerland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	24.0%	13.0%	14.0%	17.0%	20.0%	17.0%	16.0%	17.7%
average	20.3%	18.3%	21.5%	20.1%	11.7%	12.2%	12.4%	12.4%

Source: developed by the author based on Cerruti; Borra & Appolloni (2019, 2020, 2022) data

Table 3. Evolution of the European consulting market by country and type of services (finance & risks, sales & marketing, and other types of consulting), %, 2018-2020

	finance & risks				sales & marketing			
	2020	2019	2018	avg. year	2020	2019	2018	avg. year
Austria	6.2%	7.9%	6.1%	6.7%	12.9%	14.2%	7.4%	11.5%
Denmark	n/a	0.0%	0.0%	0.0%	n/a	14.0%	14.0%	14.0%
Finland	n/a	5.0%	5.0%	5.0%	n/a	15.0%	15.0%	15.0%
France	8.0%	8.0%	9.0%	8.3%	3.0%	3.0%	5.0%	3.7%
Germany	2.3%	2.1%	2.1%	2.2%	3.5%	3.6%	3.6%	3.6%
Greece	14.0%	16.0%	17.0%	15.7%	2.0%	1.0%	3.0%	2.0%
Hungary	10.0%	9.0%	7.0%	8.7%	7.0%	4.0%	3.0%	4.7%
Italy	25.9%	26.7%	26.8%	26.5%	6.1%	6.6%	6.1%	6.3%
Romania	15.0%	25.0%	20.0%	20.0%	14.0%	12.0%	15.0%	13.7%
Slovenia	n/a	11.0%	10.0%	10.5%	n/a	11.0%	10.0%	10.5%
Spain	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Switzerland	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
UK	19.0%	11.0%	12.0%	14.0%	2.0%	2.0%	1.0%	1.7%
average	12.6%	11.1%	10.5%	10.7%	6.3%	7.9%	7.6%	7.9%
	others							
	2020	2019	2018	avg. year				
Austria	24.4%	23.7%	12.3%	20.1%				
Denmark	n/a	17.0%	17.0%	17.0%				
Finland	n/a	10.0%	10.0%	10.0%				
France	8.4%	9.0%	11.0%	9.5%				
Germany	n/a	0.0%	0.0%	0.0%				
Greece	22.0%	11.0%	15.0%	16.0%				
Hungary	n/a	0.0%	1.0%	0.5%				
Italy	5.9%	6.3%	6.5%	6.2%				
Romania	n/a	33.0%	12.0%	22.5%				
Slovenia	n/a	0.0%	0.0%	0.0%				
Spain	n/a	n/a	n/a	n/a				
Switzerland	n/a	n/a	n/a	n/a				
UK	2.0%	10.0%	9.0%	7.0%				
average	12.5%	10.9%	8.5%	9.9%				

Source: developed by the author based on Cerruti; Borra & Appolloni (2019, 2020, 2022) data

Romania, in this context, benefits from European programs such as Operational Programme Human Capital (POCU), National Rural Development Programme (PNDR), The Operational Program (OP) on Technical Assistance (TA), Large Infrastructure Operational Programme (POIM), and others. Management consultants are thus employed in both the proposal preparation and the implementation of EU-funded projects. International projects account for roughly 40% of the total management consulting market in Romania.

2. Global trends in business and management consulting and the evolution in Moldova.

2.1. Global trends in the industry development.

According to the branch's evolution, consulting is becoming an increasingly important component of the business environment. As a result, it is necessary to examine the trends in the development of this industry. On a global scale, we are currently highlighting several trends that have emerged from our analysis and accumulated experience:

- Outsourcing in the consulting services. Previously, project teams were made up of consultants from a company or organization. Today, in addition to the fact that consulting projects result in multicultural teams from various countries, some processes can be outsourced to companies in related fields such as data analytics and forecasting, as well as the development of IT solutions.
- Clients enhancing their internal consulting capabilities. Clients, on the other hand, are increasingly investing in experts/associates and/or full-time experts who can manage projects, access financing, or find solutions for top management, among other things. Some companies, particularly those with complex projects and processes, invest in specialized information programs for business architecture modeling, process automation, etc., and then hire consultants for data analysis and monitoring (Methi, 2020).
- Co-creation and virtual collaborative platforms. Because of the impact of the pandemics, virtual consulting has increased through digital and collaborative platforms, allowing clients to access flexible consulting with an immediate response to simple requests (for example, filling in some initial data through forms online, chat answers, etc.). At the same time, this encourages collaboration with IT companies to create various information products for consultants and their clients, as well as collaboration with the academic environment to create distance training programs to develop entrepreneurs' capabilities. In this context, there are various ways for consultants and clients to co-create certain solutions: for example, recently, the so-called "Uber-ization"² of consulting has been discussed, expressed not only by shifting to work with freelancers, but also by developing auction platforms where the client can choose the best price, or where potential clients can register and search for consultants with the skills and experience required for a specific project. Furthermore, the client can select various individual consultants and combine them to form a project team.
- Digitalization of consulting processes. Even after the pandemic situation has stabilized, remote work and the numerous digital tools that facilitate it will continue to be widely used due to the cost savings while maintaining a satisfactory level of

² The term refers to a business model in which services are provided on demand via direct contact between a customer and a provider, typically via mobile technology. The working methodology of Uber, which is one of the world's largest taxi networks but does not own a single car, is frequently cited as an example.

service quality. Digitalization had a particular impact on remote client-consultant interaction, remote collaboration among several consultants within consulting projects, increasing remote work productivity, remote team management, etc. Another significant technology is distributed ledger technology (blockchain), a new approach to information exchange and storage that can reduce document management costs while increasing transparency, trust between parties, and security.

- The emphasis is on change, risks, and quick fixes. Consultants today devote more time to risk management (particularly operational risks) in the analysis of their clients' activities (Hodges, 2021, p. 6). Today, consultants emphasize knowledge through learning and adaptation to rapid changes in the environment when identifying solutions for their clients, solutions that currently require a flexible framework and must be immediate. This necessitates new methodologies being researched and developed by consultancies and academia, which can only be achieved through intra- and inter-industries exchange of practices and knowledge.
- Customers' trust becomes less emotional. Many consulting firms have recently made the transition to digital customer service, and this has created an interesting trend. Fewer than ten years ago, clients placed a high value on trusting the consultant and his services for two main reasons: the consultant's role (which is obligated to reduce the client's fear and uncertainty) and the particulars of consulting services (which assume quality and solutions for the client) (Colina, 2021, p. 18). Due to the lack of standardization and regulation of these services in many countries, but also because of the nature of the results of the consulting process, which are often intangible, creative, and the effects of which can be seen over the long term, this trust was more emotional and was based on the client's preferences, the recommendations that the consultant had, and his certifications. However, nowadays, the consulting cycle is shorter, services are becoming more standardized, selling them involves formal procedures and the use of IT, and direct client interaction is decreasing. As a result, the client perceives trust more rationally on data confidentiality and security, responsiveness, efficiency, and less emotionally in relation to the consultant's personality (Breuer et al., 2019), which means that the gap between "face-to-face" and virtual trust can be bridged through providing more information about ability, predictability, integrity, and transparency. Relevant to this is the modern client's ability to solicit recommendations for a consultant from individuals the consultant has never met (through social networks, or from other sources).
- Niche consulting. Companies are increasingly looking for consulting firms that can provide industry- or sector-specific solutions based on in-depth analyses of their businesses. Experts (technicians, engineers, etc.) who are familiar with operational processes will benefit from this change (Methi, 2020). Specialist knowledge in a particular field or industry, especially in one that is undergoing rapid change at the moment (such as robotics, bioproduction, precision medicine,

etc.), is expected to dominate the emerging market for strategic and operational consulting. Consulting fee efficiencies can be achieved through collaboration with technical experts during analysis and recommendation development (through the formation of strategic alliances, the sharing of projects, or outsourcing).

- Customer's return on investment. The pricing methodology for consulting services is also currently being shaken up as a result of customer concerns around price acceleration and sales volatility. In addition, the margins for profit in the consulting industry have shrunk due to the rise of online tools and intense competition. In light of this, simple solutions that are also economical are currently being sought out as an alternative to the payment of complex projects on an hourly basis. In this context, it is important to bring up the Bain & Company early motto: "We don't advice by the hour; we sell profits at a discount." (CB Insight, 2020). This development also raises the desire for working together with smaller businesses, also known as boutique consulting, or with independent consultants, also known as freelancers, in order to lower prices at various phases of the consulting process.
- Augmented workforce and the transparency of intellectual capital. Today, the information of consulting firms is widely disseminated throughout both the corporate world and society as a whole: consulting firms have blogs, consultants talk a lot about themselves online, corporations go to conferences and master classes, give speeches, and share their experiences. As a result, in environments in which information is rapidly disseminated, consulting firms are required to make consistent investments in their intellectual capital as well as their creative capacities in order to discover new ways of retaining staff members and providing them with value within the organization. In its study on the fourth industrial revolution, the consulting firm Deloitte noted the need to change the work culture by developing new methods of talent management, temporary employment and ad hoc teams, the use of artificial intelligence, and other related topics. In the model of the augmented workforce that has been presented, the projects of the company will involve not only the permanent staff, but also a whole network of external people, remote employees, and specialists. Additionally, the processes for the creation of jobs will need to be rethought "from scratch" (Deloitte, 2020, p. 13).
- Cooperation and export of services is a growing trend in recent years, especially against the background of the globalization of consulting services, the emergence of multi-cultural and multi-governmental projects; and the pandemic, at the same time, reinforced the need for risk sharing through strategic partnerships and collaborations.
- The circular economy and sustainability. If companies wish to improve their social image and remain competitive in today's market, they must take steps to reduce their impact on the environment and ensure that they are in compliance with all applicable legislation. As a result of all of this, there is an increased

demand for consultants who can assist businesses in becoming more socially and environmentally responsible in their operations.

- Regulation and collaboration with the Government. All of these shifts clearly necessitate, in today's world, a closer collaboration between consultants and governmental organizations and projects. At the present time, large corporations such as McKinsey, Boston Consulting Group, Bain, and AT Kearney are providing assistance to decision makers of state organizations in a variety of countries with resource planning, economic modeling, and crisis exit strategy formulation. For example, BCG collaborates with ministries of health, AT Kearney offers assistance with infrastructure development, and Ernst & Young works directly with 9 states in addition to over 15 central ministries and 210 districts (Kumar, 2020).

2.2. Evolution and trends in the development of consulting in Moldova.

The current state of the business and management consulting industry in the Republic of Moldova is characterized by a sluggish growth rate, which can be attributed to the "micro" format of the majority of the companies operating in this sector, the majority of which have no more than 10 employees. There are currently 551 businesses and management consulting firms on the market, employing a total of 1668 people (Association of Management Consultants from Romania, 2020). These businesses provide business and management consulting services. Approximately 20% of these are found in rural areas, and the number of those residents rose by 18% between 2019 and 2020.

Table 4. The main indicators of the management consulting market in Moldova

	No economic agents			No employees		
	2019	2020	2020/2019	2019	2020	2020/2019
CHISINAU	462	439	-5%	1611	1440	-11%
REGIONS	95	112	18%	220	228	4%
total	557	551	-1%	1831	1668	-9%
	Turnover, mln. EUR			Profit, mln. EUR		
	2019	2020	2020/2019	2019	2020	2020/2019
CHISINAU	26.7	24.7	-7%	5.5	6	9%
REGIONS	3	3.5	17%	0.9	1.2	33%
total	29.7	28.2	-5%	6.4	7.2	13%

Source: developed by the author based on Association of Management Consultants from Romania (2020, 2021) data

According to the table, these businesses have generated a total turnover of approximately 30 mln. EUR annually over the past two years, with a growth of 17% in the regions (2020 compared to 2019), and a profit of over 6 mln. EUR annually (in the regions – more than a 30% growth in 2020). The expansion of support from the government, donors, and organizations that support the business environment in rural areas, particularly

in agriculture, is largely responsible for the growth of these types of services in the regions in recent years (i.e. the International Fund for Agricultural Development (IFAD) programs, Agency for Payments and Intervention in Agriculture (AIPA), Entrepreneurship Development Organization (ODA), etc.).

It is important to note that in 2019, the percentage of consulting work done in agriculture was comparable to the percentage of consulting work done in the industrial sector, which was over 33%. However, in 2020, the percentage of consulting work done in the service sector predominated, coming in at approximately 35% (figure 4).

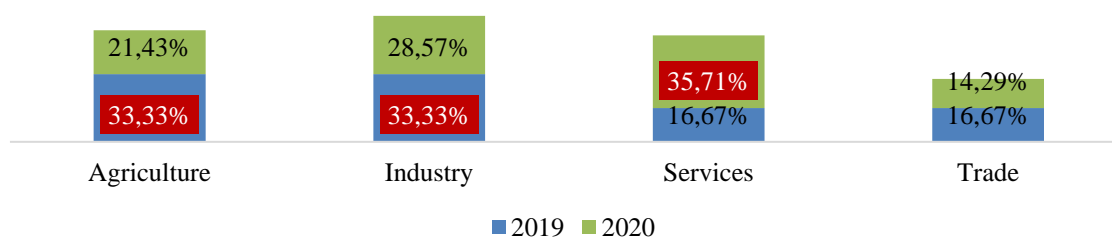


Figure 4. Sales structure by sector, 2019-2020

Source: developed by the author based on Association of Management Consultants from Romania (2020, 2021) data

In addition, consulting for the public sector and donors dominates the market structure, accounting for fifty to sixty percent of total sales in both of the years analyzed, and this percentage is growing (figure 5).

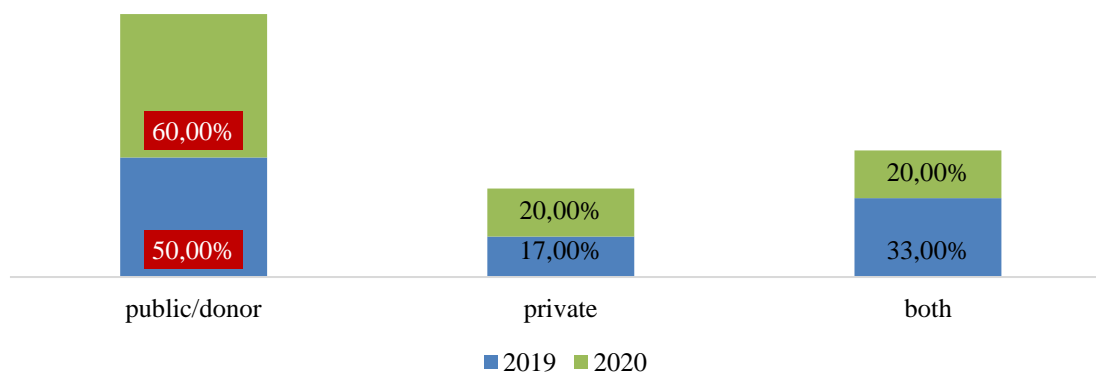


Figure 5. Sales structure by customer, 2019-2020

Source: developed by the author based on Association of Management Consultants from Romania (2020, 2021) data

In terms of the structure of sales in accordance with the type of services offered, strategic consulting was prioritized in 2019 and accounted for 50% of the total. However, in 2020, the structure shifted in favor of operational consulting, which resulted in its weight becoming equal to that of strategic consulting — approximately 30% (Figure 6). This was caused by a shift in the priorities of customers, who now require more immediate solutions, particularly in relation to pandemic influences and changes in certain business processes.

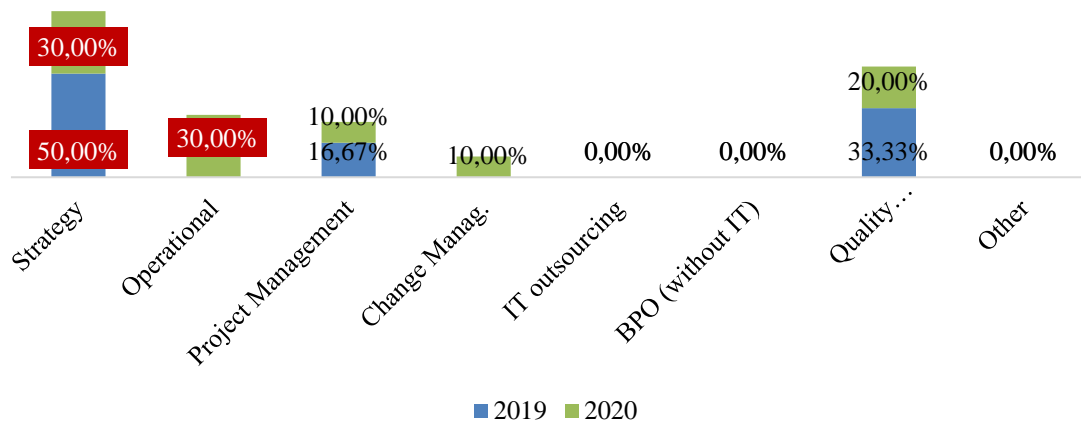


Figure 6. Sales structure by services, 2019-2020

Source: developed by the author based on Association of Management Consultants from Romania (2020, 2021) data

The Covid-19 crisis has had a significant impact on the economic climate in the Republic of Moldova, including the consulting industry there. If the companies that took part in the survey cited economic and political instability as a primary concern at the beginning of the year 2020 (representing approximately 33 % of the total), then by the end of the year 2021, the focus had shifted to the difficulties posed by the pandemic (representing approximately 29 % of the total) (figure 7).

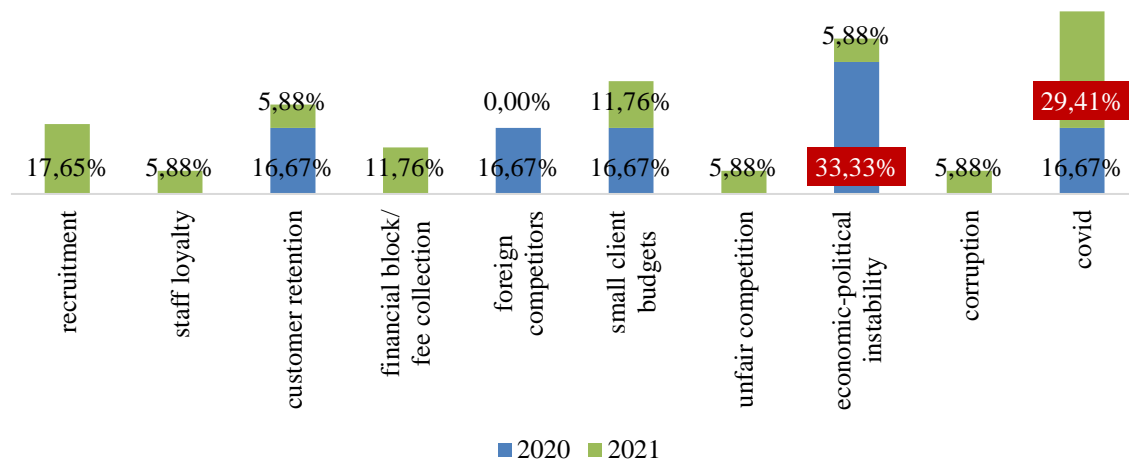


Figure 7. Challenges of consulting companies in Moldova

Source: developed by the author based on Association of Management Consultants from Romania (2020, 2021) data

At the same time, according to the recent survey of 20 main players in the industry (Association of Business and Management Consultants from Moldova, 2021), the majority of consulting companies saw growth in demand for their services in 2021, keeping prices constant (figure below). On average, there was a 30% increase in demand at 10 companies,

and at the same time, demand decreased by 33% at 7 companies. Prices were reduced in 2 companies (-20%), and increased (+33%) in 6 companies out of the 20 respondents.

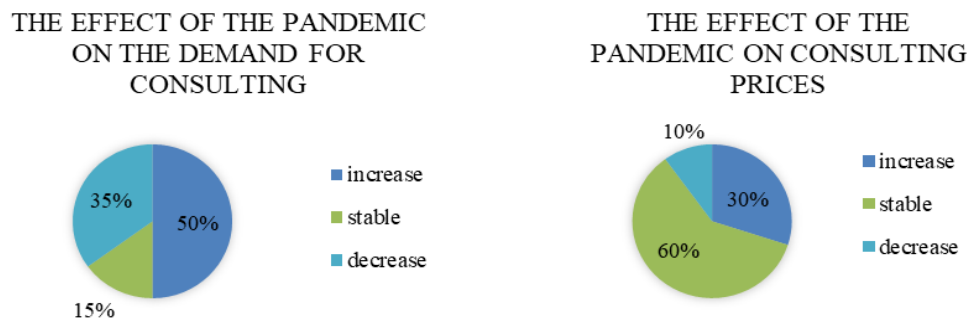


Figure 8. The effect of the pandemic on consulting companies in Moldova

Source: developed by the author based on Association of Business and Management Consultants from Moldova (2021) data

In addition to the pandemic effects and global trends affecting consulting in Moldova, it is necessary to note that the branch will be especially marked by:

- Digitalization and IT consulting. The developments in technology, computerization, and globalization are all having a significant impact on the future of consulting at this stage in its development. The Internet has brought about profound shifts in the way that businesses are structured. Companies are increasingly providing remote services, and a variety of solutions are emerging to digitize certain consulting stages to accommodate this trend. In light of these circumstances, there has been a clear pattern of sustained growth in the demand for consulting services in the field of information technologies over the past few years.
- Intra- and inter-sectoral cooperation and partnerships, which will intensify collaborations between local and international consulting companies, as well as collaborations with related sectors and the academic environment, modeling themselves after companies in developed countries and following the trend of businesses in those countries. In this regard, one example to consider is the projects that are being carried out by the Tekwill Moldova Center of Excellence. These projects contribute to the growth of multiple sectors of the economy by combining the efforts of consultants, academic environments, the associational sector, information technology, etc.
- Improving the quality of services and the regulation. There has been a recent uptick in the number of local consultants who hold a variety of international certifications (for instance, Project Management Professional (PMP), Certified Management Consultant (CMC), and Business Analysis (BA), in addition to their membership in various regional or global profile organizations. On the other hand, local clients are becoming increasingly demanding in the selection of consultants, and the necessity to regulate this field is emerging on the market, for example from the professional associations (such as the Association of Business and Management Consultants through initiatives to create the professional standard of

the industry, to create university courses for young specialists, etc.), as well as from donors and various interested organizations (i.e. by training consultants and by creating databases and networks of accredited consultants – ODA, the World Bank, European Bank for Reconstruction and Development, etc.).

- The export of consulting services. In recent years, there has been a growing trend among international consulting firms to hire local consulting services. This trend has been made possible by international collaborations (within tenders and complex projects) (based on cost savings, but also based on the search for knowledge of the specific of Commonwealth of Independent States' space). At the same time, the government is taking steps to create opportunities that will facilitate the export of consulting services within specially designed areas. One such step is the creation of the Park for International Business Services (Draft Law No. 428/ME/2022), which is an example of one of these opportunities.

Conclusions

Consulting is one of the important branches, in our opinion, for the economy because of its influence on the business environment, its contribution to the creation of a collaborative society, to the development of innovations and the dissemination of knowledge, but also due to the impact of inspiration for managers and academia.

The level of development of the industry is currently determined by a number of factors, including the diversification of services, the intensification of competition, and the complexity of consulting projects, as well as the progression of technical, scientific, and informational advancements, the globalization of business, and the changes brought about by the COVID pandemic.

Against the background of these changes, according to forecasts, a global market value of 514 billion EUR is estimated in 2027. Agile, artificial intelligence and complex data analytics, respectively, are three benchmarks in the field of consulting that will develop intensively. At the same time, we believe that the emergence of new economic branches and professions will condition the need for the development of new capacities and the application of knowledge and new managerial tools, which will stimulate both the growth of the consulting field and related fields.

At this point, all of this necessitates a more close-knit collaboration between consultants, an intensification of certifications and trainings, and membership in representative organizations in order to promote professional standards and promote the profession among clients.

The consulting market in the Republic of Moldova is on the verge of developing gradually, as it is being marked by the challenges facing society and influenced by the small size of the national economy. The market is relatively young in comparison to developed Western markets, which have been around for over a hundred years. Only about fifty of the more than five hundred businesses that have this registered field of activity as

their primary focus are considered "visible," and their primary activity is providing business and management consulting.

However, we can highlight an increase in this branch in general, and an expansion of services in the regions, mostly caused by the support of State programs, partners, donors and organizations that support SMEs and their access to consulting services. The culture of cooperation and partnership between market actors is in its infancy and largely depends on the level of development of the entrepreneurial culture in the country. A special role is played by the collaborations of the main players in the formation of professional associations, and initiatives to certify consultants and regulate the services provided.

The national consulting market consequently "has room for growth," and the current trends indicate that the industry will be profoundly impacted particularly by remote work and digitalization, the export of services, cooperation, and the increase in the quality of both services and products. The cooperation, on the other hand, will be able to create premises for the creation of synergies with a view to the contribution of companies to the development of the branch, as well as the development of new products and services, from co-creation with the academic and educational environment.

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THE RELATION BETWEEN INNOVATIVE POLICY INSTRUMENTS AND SMES RESILIENCE: CONCEPTUAL ANALYSIS

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Abstract: *In recent years, we have been witnessing a succession of economic, financial and health crises on a global scale, the most recent being the 2020 COVID-19 health crisis. Monetary and macroprudential stability policies have been implemented in order to address the harmful effects of these crises on both capital markets and the real economy. In addition, central banks have innovated and mobilized the arsenal of instruments at their disposal for the implementation of new "so-called unconventional" monetary policies in order to influence the economic and financial behavior of private agents and strengthen resilience of SMEs. The aim of the paper is to study the efficiency of traditional monetary measures and emphasize the role of innovative tools in driving the economic growth. various "unconventional" monetary policy measures put in place by the monetary authorities to stimulate economic growth, absorb health and financial shocks and strengthen the resilience of SMEs are analyzed.*

Keywords: *Unconventional monetary policies, SMEs, monetary policies, central bank*

JEL Code: *E20, E50*

Introduction

Central banks have been generally responsive and pragmatic to the COVID-19 financial and health crisis. They lowered their key interest rates on several occasions, some of them almost to the floor of 0%, and thus provided the banks and the economic system with abundant liquidity, thus assuming their role as "lender of last resort".

In order to fully assume their role of monetary regulation, central banks, especially the ECB and the FED, practiced "unconventional monetary policies" justified by the impossibility of further reducing their key rates. Central banks implement unconventional measures when circumstances justify them, particularly when traditional monetary policy is inadequate or when transmission channels no longer function satisfactorily: Appearance of a risk of deflation, stock market or bond crash, bankruptcy of a major credit institution,

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crisis of confidence in the financial sector. Each central bank has combined these different approaches as it sees fit, according to its own objectives, instruments and constraints.

Moreover, central banks have innovated and mobilized the arsenal of instruments at their disposal to implement new unconventional monetary policies in order to influence the economic and financial behavior of private agents and strengthen the resilience of micro and small and medium enterprises (MSMEs).

Indeed, several studies have shown that unconventional central bank instruments have impacted the financing expectations of firms such as PEM (Public Expenditure Management). In this sense, the study published by Ferrando, Popov and Udell (2022) shows that the introduction of negative interest rates as well as the Corporate sector purchase programme (CSPP) by the Outright Monetary Transactions (OMT) is a program of the European Central Bank (ECB-OMT) have improved the expectations of future access to credit for SMEs. Similarly, German SMEs have responded significantly to the changes in the user cost of capital during the post-crisis period (Gerstenberger, 2020).

The objective of this paper is to see to what extent innovation in monetary instruments can have an impact on strengthening the resilience of SMEs and on stimulating economic growth. This paper will analyze a series of monetary policy instruments and study the role of traditional and innovative monetary measures in stimulating the economic growth. In our study we will focus in reporting and explaining various channels and instruments of monetary policy mobilized during episodes of economic crises.

The structure of this paper is as follows: The first section will be devoted to explaining the dysfunction of traditional monetary policy channels and instruments during episodes of banking and health crises (the interest rate channel and the credit channel); The second section will study and analyze the main monetary tools innovated and mobilized by the ECB, the FED and BAM (Moroccan central bank) and will explain how these new tools have contributed to mitigate the effects of these crises and the third section will study the different "non-conventional" monetary policy measures implemented by the Moroccan monetary authorities to stimulate economic growth, absorb health and financial shocks, and reinforce the resilience of SMEs.

1. Malfunctioning of monetary policy transmission mechanism during crisis times.

Numerous theoretical and empirical analyses (Borgy, Clerc, & Renne, 2009; Paul, 2010; Bernanke, Reinhart, & Sack, 2004; Sami, 2012; Eggertsson & Woodford, 2003) have studied the dysfunctioning of traditional monetary policy channels during banking crises. There are several factors that may be responsible for the alteration of the transmission channels of monetary decisions. Among these factors, we distinguish those that cause the blocking of the interest rate channel and those that render the credit channel inoperative. Both factors may slow down or block the transmission of monetary policy decisions. That said, the effectiveness of traditional monetary policy instruments diminishes when the banking system malfunctions.

1.1. Blocking the credit channel

The blocking of the credit channel occurs when the banking system no longer functions normally and the flow of credit to the economy slows down or stops. This can be the case if:

- Banks have experienced losses (e.g., related to the subprime crisis) that reduce their capital base and their ability to lend;
- Economic conditions are deteriorating sharply (e.g., the COVID-19 crisis), making credit riskier and lenders more reluctant;
- Economic uncertainty is increasing, raising risk premiums, increasing banks' cost of funds and deterring borrowers;
- The interbank market which is the main source of refinancing for banks is blocked due to a mutual loss of confidence among participants.

As a result, a sharp deterioration in economic activity makes lenders more reluctant to extend new credit because of increased risk aversion. As the economy deteriorates, loans become potentially riskier (Borgy, Clerc, & Renne, 2009). The blocking of the credit channel can also result from a generalized failure in the interbank market. This market is an essential link in the transmission chain of monetary policy shocks (Bernanke & Gertler, 1995). Indeed, when institutions in this market no longer trust each other, then liquidity needs are hardly ever properly met, which further cripples' transmission because most banks tend to hoard liquidity.

Many studies have shown that this situation is likely to persist as long as there are doubts about the creditworthiness of participants. However, given the increased reliance of credit institutions on money market funds, the prolonged paralysis of money market trading may significantly weaken liquidity management and bank intermediation activities. This weakening is likely to render the credit channel inoperative (Gambacorta, 2009).

1.2. Blocking the interest rate channel

While analyses of the interest rate channel give a decisive role to the actions of the monetary authorities, it turns out that this power is likely to be weakened if the economy falls into a "liquidity trap" situation (Coupey-Soubeyran, 2012).

However, theoretical and empirical analyses have revealed that the liquidity trap context occurs when the economy is shaken by a combination of three types of shocks (Krugman et al., 1998; Eggertsson & Woodford, 2003; Bernanke et al., 2004; Paul, 2010).

First of all, when the policy rate reaches a low level or close to zero. At this level, the central bank loses its traditional weapon. Moreover, when the policy rate is close to zero, the central bank's power over short-term rates begins to decline (Bouveret et al., 2009). The consequences of this situation are nevertheless very important. Banks will take advantage of low rates to stockpile more excess reserves.

On the other hand, the liquidity trap only appears when liquidity supply channels are destabilized, which induces strong fears among banking institutions that will prefer to

hoard liquidity rather than transform it into credit. These fears, fueled in part by the climate of uncertainty, are likely to exacerbate tensions on the money market (Travers et al., 2009).

And finally, the formation of a liquidity trap is most often accompanied by deflation. Moreover, theoretical and empirical analyses of the 1990 Japanese crisis have provided some valuable insights into the nature of deflation. This experience revealed that deflation occurs after a long period of financial stress (Duprat, 2013).

The duration and depth of the financial tensions eventually diminish the traditional lever of monetary policy (the interest rate). To get out of this situation, the monetary authorities first proceed with a massive drop in the cost of bank refinancing. At some point, they can hardly lower their rates again. Faced with this situation, central banks have had to resort to so-called "unconventional" instruments to maintain their power to influence interest rates.

2. Unconventional measures

Taking the main cases of transmission channel malfunctions mentioned below, we can distinguish three main categories of non-conventional measures, which can be combined.

These measures aim respectively at:

- Massively increase the amount of money in circulation in the economy. This is known as "quantitative easing";
- Acting on the slope of the term structure of interest rates by committing to the future path of key rates in order to guide agents' expectations;
- Unfreeze the credit markets by broadening the range of loans granted to the economy and by buying securities directly on the interest rate markets in order to influence risk premiums. This is known as "credit easing" (easing of credit conditions).

2.1. Quantitative Easing

Quantitative Easing (QE) is a policy whereby a central bank creates money by making massive purchases of financial assets (especially government bonds). The objective is to inject significant liquidity into the economy in order to stimulate activity and economic growth and to raise the inflation rate to prevent the economy from falling into deflation.

The massive creation of money aims to get around the obstacle of the blocking of the interest rate channel (Sami, 2012). The central bank tries to "saturate" the demand for money by economic agents, hoping that they will spend their surplus cash directly and thus stimulate investment and economic growth.

In a way, it is a matter of creating a new monetary policy transmission channel that does not depend on the interest rate. In ordinary times, this direct channel through the money supply cannot be used, because the demand for money is unstable in the short term: there is no predictable link between the quantity of money demanded and the economic situation. In exceptional times, this short-term instability is less of a problem if the central bank is willing to supply unlimited amounts of money.

It is not certain, however, that even an unlimited supply will be sufficient to stimulate spending if the demand for money is itself infinite. This is why, very often, the supply of money is channeled to the only agent that is certain to spend money: the government through its budget deficit. Thus, central banks' policies of purchasing government debt securities are one of the most widely used forms of quantitative easing (Loisel & Mésonnier, 2009).

2.2. Term structure of interest rates

The aim of acting on the slope of the term structure of interest rates is to change the interest rate curve by influencing the expectations of agents on the capital markets. To do this, the central bank can explicitly commit to keeping its policy rate at a very low level (or even zero) for a significant period of time.

The central bank can also define the preconditions for a future increase in its policy rate: for example, guaranteeing that there will be no increase until inflation reaches a certain level. This strategy is even more effective if the central bank has a numerical definition of price stability in its general policy framework, which then serves as an explicit benchmark (inflation targeting). Extending the maturity of the refinancing granted at the key rate beyond the traditional few days also contributes to this policy.

2.3. Credit Easing (Assouplissement des Conditions de Cr dit)

If the credit channel is blocked, the central bank can substitute itself for commercial banks and the capital market to finance the economy directly. In concrete terms, the central bank first broadens the range of loans to the economy that it refinances, and then can directly purchase securities representing loans to the economy: commercial paper, private bonds, mortgage bonds.

These "credit easing" operations have a double effect: on the one hand they reactivate the market for debt securities and on the other hand they provide financing directly to the economy. In return, however, the central bank must assume a credit and interest rate risk that is not part of its ordinary function. Indeed, monetary measures under the heading of "credit easing" have more scope in economies where companies are financed essentially by issuing commercial paper or bonds, where loans obtained by households - mortgages or consumer loans - are largely securitized and therefore financed primarily on the markets. Conversely, when bank intermediation covers the bulk of financing needs (as in the case of Morocco), quantitative easing measures or those that influence the interest rate curve are used (Gauvin, 2013). The table 1 presents the non-conventional measures (table 1).

Table 1: Unconventional monetary policy measures

Objective \ Measure	Purchases of public securities	Achats de titres privés	Commitment to maintain rates
Increase the amount of money in the economy	Yes	Yes if not sterilized	No
Acting on inflation expectations and the interest rate curve	Yes	Yes through risk premiums	Yes
Unlocking the credit markets	No	yes	N

Source: *Borgy, Clerc & Renne (2009)*

2.4. Main measures of unconventional monetary policies (case of the FED and the ECB)

In response to the economic crisis caused by COVID-19 health crisis, the major central banks of the advanced economies introduced a number of measures in order to meet their price stability and/or employment objectives. First, key interest rates were lowered considerably (as part of a conventional monetary policy).

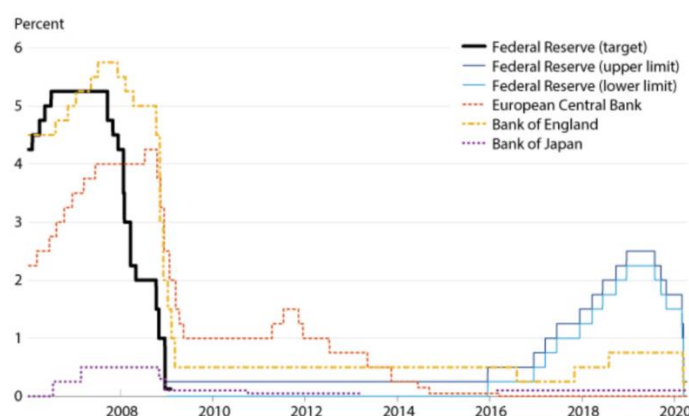


Figure 1. Evolution of policy rates of the major central banks (FED, ECB, BoE and BJ)

Source: © 2020, *Federal Reserve Bank of St. Louis*

In the United States, the Eurozone and the United Kingdom, they have been cut at unprecedented rates and levels, while in Japan they have been lowered again to close to their historical lows. Second, in response to the scale of the global crisis and the zero lower bound on nominal interest rates, the major central banks turned to so-called "unconventional" monetary policy instruments (Cheikh & Fettahi, 2017).

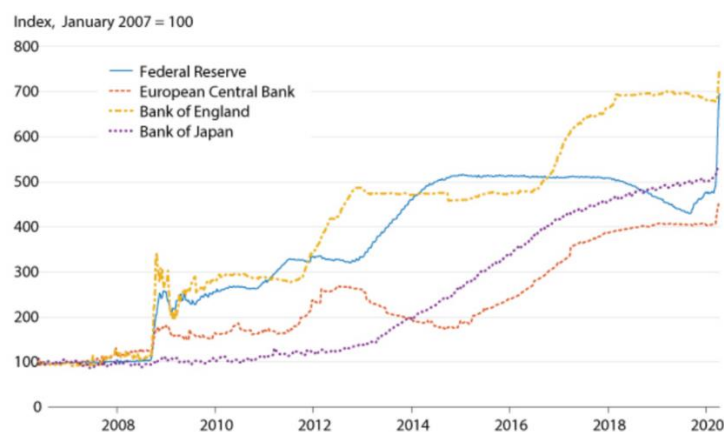


Figure 2. Evolution of the major central banks' assets (FED, ECB, BoE and BJ)

Source: © 2020, Federal Reserve Bank of St. Louis

While unconventional monetary policies have taken different forms in different countries, they have all led to a sharp increase in the size of central banks' balance sheets. In this section, we report on the main unconventional monetary policies pursued by the ECB and the FED in the aftermath of the COVID-19 global financial and health crisis.

2.4.1. Unconventional monetary policy implemented by the FED

2.4.1.1. Unconventional measures put in place by the FED to deal with the international financial crisis

In response to the onset of the financial crisis that shook the U.S. financial system, the FED initially lowered its key interest rate sharply from 5.25% in September 2007 to a range between 0% and 0.25% at the end of 2008, and has kept it unchanged since. In the absence of room for maneuver with this instrument and noting the persistent effects of the crisis (Cheikh & Fettahi, 2017), the FED decided to adopt unconventional measures through a policy of quantitative easing (QE) consisting of massive purchases of financial assets. This program was carried out in the following phases (Box 1.1).

Box 1.1: Main unconventional monetary policy decisions taken by the FED

A. Policy rate

Very quickly, between September 2007 and December 2008, the federal funds rate was reduced from 5.25% to a range between 0 and 0.25% (Cúrdia, V., & Ferrero, A. (2013). In January 2012, it was announced that this rate will remain at this level until the unemployment rate is back to about 6.5%.

B. Special devices :

1. Refinancing Facility:

To facilitate short-term refinancing for banks and reduce upward pressure on the interest rates they pay, the Fed established the Term Auction Credit Facility (TAF) (closed in March 2010), the Primary Dealer Credit Facility (PDCF) and the Term Securitization Lending Facility (TSLF), both closed in February 2010 (Fleming et al., 2009). As such, it has dollar swap agreements with 14 foreign central banks to provide dollars in these jurisdictions.

2. Liquidity grant :

A second mechanism was set up to provide central bank money directly to investors and issuers in the main financial markets, notably the Commercial Paper Funding Facility and the Term Asset-Backed Securities Loan Facility. The beneficiaries bring commercial paper and securitized loans (car loans, student loans, etc.) to the FED's window. (Soubeyran, 2013).

3. Market operations

The third mechanism consists of "quantitative easing" (QE) purchases of securities in the markets. To lower long-term interest rates permanently, the Fed buys US Treasury securities. In this way, it monetizes the US federal debt

- Quantitative Easing 1 (December 2008 - March 2010): Under QE1 the Fed bought 1720 billion in long-term securities (1250 billion in Mortgage Backed Securities (MBS), 300 billion in Treasuries and 170 billion in debt securities by federal agencies). The goal was to restore liquidity to the financial market, to make credit more fluid, to reduce its cost and to stimulate investment.

- Quantitative Easing 2 (November 2010 - June 2011): In response to the continued fragility of economic activity and financial tensions, the Fed decided to launch a new round of quantitative easing consisting of buying an additional \$600 billion in Treasury bonds at a monthly rate of \$75 billion. The main objective of this second round of monetary easing is to keep long-term real interest rates low by raising inflation expectations, which will encourage the purchase of equities and, through a wealth effect, restart consumption and thus avoid the highly counterproductive risks of deflation (Engen, E. M., Laubach, T., & Reifschneider, D. (2015).

- Operation Twist (September 2011 - December 2012): Consists of exchanging Treasury bills with maturities of less than three years for those with maturities of 6 to 30 years, in order to keep long-term rates low so as to support the economy.

- Operation Twist 2 (July 2012 to December 2012): Extension of the program to \$267 billion.

- "Quantitative Easing 3 (September 2012 - October 2014): As QE1 and QE2 were not as beneficial as hoped, the Fed initiated a third wave of monetary injections by announcing, in September 2012, monthly purchases of MBS securities for \$40 billion. In January 2013, these purchases were extended to Treasuries for an amount of \$45 billion, bringing them to a total of \$85 billion with the same objective: to weigh on rates and promote the economic recovery. In December 2013, the FED announced a gradual reduction in these asset purchases (Dupuy, M. (2012).

On October 29, 2014, the Fed decided to end its quantitative easing program, a decision motivated by a significantly improved outlook for the labor market and stronger economic activity.

Finally, it should be noted that these monetary policy measures taken by the FED took the form of steering agents' expectations by announcing the maintenance of the key rate at a very low level for a long period, by easing credit conditions and finally by quantitative easing leading to an unprecedented swelling of the balance sheet of the US central bank. Its total assets having grown from \$877 billion at the end of 2006 to \$4,509 billion at the end of 2014.

2.4.1.2. Unconventional measures put in place by the EDF to address the COVID –19 health crisis

At the onset of the crisis, the FED held two special meetings in early March 2020, during which it reduced the target range for the federal funds rate by a total of 150 basis points (bps), bringing it to 0%-0.25%. At the same time, it announced the increase of its holdings of at least 500 billion in Treasury bills and 200 billion in mortgage securities, and

then decided, in the same month, to increase them as much as necessary to further promote the smooth functioning of the market and the transmission of monetary policy.

In addition, the FED implemented broad measures to support the financing of the economy more directly and prevent a tightening of financial conditions by launching several new facilities and reactivating others. Taken together, these actions provided nearly \$2 trillion in financing beginning in April to support businesses large and small, nonprofit organizations, and state and local governments.

The FED also adjusted its forward guidance, indicating that it plans to keep rates at their current levels until it is confident that the economy is on track to achieve its goals of full employment and price stability. In addition, to improve the supply of U.S. dollar liquidity, the Bank, in consultation with several central banks, expanded and strengthened its standing swap arrangements.

2.4.2. Unconventional monetary policy implemented by the ECB

2.4.2.1. Non-conventional measures implemented by the ECB to deal with the international financial crisis

The ECB, for its part, has responded to the effects of the latest global financial crisis by implementing new unconventional measures. It reiterated that it will keep its key interest rate low for an extended period. At the same time, it announced a series of unconventional measures in the form of targeted longer-term refinancing operations (LTROs) and government securities and covered bond purchase programs targeting illiquid segments of the private sector and government bond markets. These measures are primarily aimed at improving the transmission of monetary policy and supporting the real economy.

Box 1.2: Main unconventional monetary policy decisions taken by the ECB

A. Policy rate

After the July 2008 hike to 4.75%, the ECB's main rate is being gradually lowered to 0.75% in July 2012 to address deflationary risks, weak economic activity and the persistent credit crunch.

B. Special devices

- As of October 2008, the ECB is increasing the number and size of its long-term bank refinancing operations (up to 6 months). Banks can thus obtain all the liquidity they need. At the same time, the list of securities used as collateral was expanded and their rating was lowered.

- In May 2009, the ECB allows refinancing for up to 12 months on a quarterly basis.

- In October 2011, the eligibility criteria for securities that banks can bring to the ECB's window were further relaxed. Whether it is securitized claims or bank loans. The reserve requirement ratio of banks with the ECB is lowered to 1% (Brand, 2011).

- In December 2011 and February 2012, the ECB refinanced the banks at 3 years. In two steps, 489 billion euros, and then 529 billion were injected in total into the system.

1. Sovereign debt

- In May 2010, the ECB is implementing a Securities Market Programme (SMP). The ECB will mainly buy government securities from peripheral European countries. At the end of March, it held 205.9 billion euros of government bonds in its accounts. The objective is to avoid a rise in interest rates on government bonds from these countries, which would threaten their

fiscal consolidation strategy (Cordemans & Stefaan, 2014).

- *In August 2011, in response to the rapid rise in yields on some sovereign bonds, the ECB reactivated purchases of government bonds under its Securities Markets Program (SMP);*
 - *At the end of May 2012, securities purchased outright under the MTP totaled €212 billion, and those purchased under the covered bond purchase programs (CBPP) were around €69 billion. The two 3-year refinancing operations have allocated a total of about €1,000 billion (Cordemans & Stefaan, 2014).*
 - *At the end of 2012, the ECB reactivated SMP purchases, with the program increasing from €74bn in mid-2011 to €211bn at the end of 2012.*
2. *Market operation*
- *In June 2009, the ECB is buying directly on the primary and secondary market 60 billion euros worth of covered bonds (PAOS). By acquiring bonds backed by public sector loans, the ECB will allow banks to sell them and benefit again from a market for these securities.*
 - *In 2011 in the context of an intensifying public debt crisis, the ECB took the following unconventional measures:*
 - ✓ *It reactivated the Covered Bond Purchase Program (CBPP);*
 - ✓ *It set up two 36-month Unlimited Liquidity Allocation Operations for banks (for amounts of €489 billion and €529 billion respectively);*
 - ✓ *It has halved the reserve requirements for banks, freeing up about €100 billion of liquidity for European banks;*
 - ✓ *It has expanded the range of collateral accepted in refinancing operations. (Bank for International Settlements, 2013).*
 - *In September 2012 the Covered Bond Purchase Program (CBPP) was discontinued after the announcement of the program opening the possibility of conducting Outright Monetary Transactions (OMT) in the secondary sovereign bond markets;*
 - *Since July 2013, the ECB has been moving towards a policy known as "Forward Guidance", which consists of announcing and committing to the future path of the key rate. Through this, the ECB wishes to increase the transparency of its action and anchor expectations. The objective is to specify its strategy as well as its forecasts for the evolution of the economy. This is a way for the ECB to affirm its intention not to raise interest rates in the near future. It hopes to influence private expectations of short-term rates, and therefore long-term rates, in order to support the economy (Kool & Thornton, 2015).*
 - *In June 2014, the ECB set up Targeted Longer-Term Refinancing Operations (TLTROs) to support bank lending to households and non-financial firms. It has also decided to intensify its preparatory work on outright purchases in the asset-backed securities market. (Bank for International Settlements, 2014, p.96).*
 - *Thanks to these unconventional measures, the size of the ECB's balance sheet increased from 1,000 billion euros to 2,600 billion euros between 2007 and 2014.*

The various monetary actions undertaken have had a significant impact on the ECB's balance sheet, which has more than doubled in size, from €1,000 billion in 2007 to €2,600 billion in 2014. The expansion of the ECB's balance sheet is mainly due to the strong demand for liquidity from banks during the two three-year refinancing operations and the purchase of securities.

2.4.2.2. Unconventional measures implemented by the ECB to deal with the COVID – 19 health crisis

Constrained by key interest rates close to zero, the ECB adopted a series of measures in March 2020 to strengthen its quantitative easing policy. It announced a temporary additional envelope of 120 billion euros in addition to the 20 billion euros of monthly purchases planned under its asset purchase program. It also launched a temporary Emergency Pandemic Purchasing Program (EPPP) with a high degree of flexibility over time, across asset classes and across countries. This program was initially endowed with an envelope of 750 billion, increased by 600 billion in June 2020 and by 500 billion in December 2020 to reach 1850 billion euros, with an extension of the horizon until at least the end of March 2022.

In addition, the ECB has relaxed, and gradually recalibrated, the conditions set for the third round of targeted longer-term refinancing operations (TLTRO III). The maximum total amount that banks will now be able to borrow has been increased to 50% and then to 55% of their stock of eligible loans, compared to 30% in the initial setting.

Also, during the period from June 2020 to June 2021, the rate applied to TLTRO III will be 50 bps below the average interest rate of the main refinancing operations in force (i.e. -0.5%) and 50 bps below the deposit facility rate (i.e. -1%) for banks that exceed the lending performance thresholds. In December 2020, it decided to extend the period of application of the significantly more favorable terms by 12 months to June 2022.

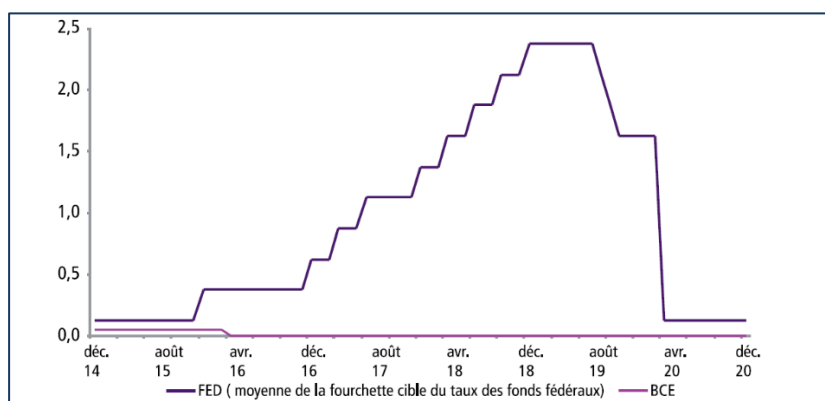


Figure 3. ECB and FED key rates (in %)

Source: Thomson Reuters in BAM, (2020), p. 23.

To cover the period before the start of the TLTRO III in June 2020, the ECB set up a series of weekly LTROs (bridge LTROs). In addition, it introduced a new type of non-targeted longer-term refinancing operation (PELTRO) to provide an effective liquidity safety net. Finally, in June 2020, the ECB introduced a Eurosystem repo facility (EUREP) to provide precautionary euro repo lines to non-euro area central banks in addition to bilateral and swap repo lines.

2.4.3. Comparison between the ECB's and the FED's unconventional measures

In terms of unconventional policies, it is clear that the measures taken by the two central banks differ. This can be explained by the fact that the objectives pursued were not the same, by the difference between the operational frameworks of the two central banks, but also by the specificities of external financing of the two economies.

The banking sector accounts for more than 70% of the external financing of households and companies in the euro zone, whereas in the United States, households and companies prefer to finance themselves in markets other than the banking sector, and consequently 80% of external financing comes from sources other than bank credit (Cordemans & Ide, 2012).

The ECB has therefore focused mainly on banks, while the US Federal Reserve has extended its actions to other players in the financial sector. The ECB has mainly tried to avoid a liquidity crisis in the banking system. It provided liquidity to the banking sector in order to avoid an increase in borrowing rates and to limit the risk of a credit crunch.

For its part, the Fed clearly announced that its objective was to make monetary conditions more accommodating in order to support the economy, and this, by lowering long term rates or by supporting the equity market. The Fed therefore sought to lower rates on the financial markets since this is where the US economy is mainly financed. To do this, it injected liquidity into the market by means of quantitative easing.

Finally, even if the tools used differ, the unconventional monetary policies conducted by the two central banks have the ultimate objective of improving the financing conditions of the economy.

2.4.4. Key policy decisions taken by BAM to strengthen the resilience of SMEs and MSEs

BAM has implemented two unconventional measures to address the international financial crisis, namely the “Key rate” and the “Reserve requirement rate”.

- **Key rate:** Against a backdrop of sluggish growth and weakening credit, BAM lowered its main policy rate in December 2014 by 0.25 basis points to 2.5%, and has kept it unchanged since then. The previous cut was only in mid-September 2014. The objective of this monetary easing is to further support the recovery of economic activity and growth.

- **Reserve requirement rate.** In order to cope with the structural liquidity shortage, BAM has proceeded to the gradual reduction of the reserve requirement rate, bringing it down from 16.5% in 2007 to 4% in 2012 and then to 2% in March 2014. This last decision has allowed to release for the banking system an additional liquidity of about 8.1 billion dirhams. (BAM, 2014, p.135)

In summary, it can be said that BAM adopted an accommodative monetary policy during the period from 2008 to 2014. It reduced the policy rate and the reserve requirement rate to meet the liquidity needs of banks.

Box 1.3: Key monetary policy decisions made by BAM**1. Market operation**

BAM has adopted additional monetary policy measures aimed primarily at supporting the financing of MSMEs:

- *In April 2011, BAM removed the book accounts from the calculation base of the mandatory reserve. These measures allowed to release a total amount of MAD 57.4 billion. (BAM, 2014, p.135)*
- *In September 2011, BAM introduced longer-term reverse repo operations, which will give banks better access to central bank money, ease bank liquidity pressures and provide more visibility in the money market.*
- *In March 2012, BAM decided to extend the collateral eligible for monetary policy operations to bills representing private claims of VSEs and SMEs. This decision aims to give SMEs easier access to additional credit and new equipment loans and cash facilities for amounts up to 15 million dirhams for SMEs and 2 million dirhams for VSEs.*
- *Between 2013 and 2014, with the persistence of a difficult economic situation and the continued deceleration of bank credit, BAM set up a new mechanism to refinance loans granted to SMEs, excluding real estate development and the liberal professions, for amounts less than or equal to MAD 50 million and for terms greater than or equal to 12 months.*

This device allows banks to have each year advances of BAM for an amount equal to the volume of credit they intend to grant to SMEs and benefit from a refinancing equivalent to the volume of credit granted, in this case, to SMEs operating in the industry sector or whose production is intended for export. (Brookfield Asset Management, 2013, p.10-26). These advances are allocated quarterly in the form of guaranteed loans and/or repurchase agreements, for a period of one year.

Their collateral is extended to all loans distributed to SMEs, certificates of deposit and mortgage loans, meeting the criteria defined by BAM (BAM, 2014, p.135-138). This program has been strongly supported by banks and at the end of the year, the outstanding loans granted within this framework reached MAD 18.9 billion.

In addition, BAM adopted additional monetary policy measures aimed mainly at supporting the financing of SMEs through: the removal of passbook accounts from the basis for calculating the reserve requirement; the introduction of longer-term refinancing operations; the expansion of collateral eligible for monetary policy operations to include bills representing private claims of SMEs; and the implementation of a refinancing program for SMEs operating outside real estate development and the professions.

3. Unconventional Measures Implemented by BAM to stimulate SMEs resilience during the COVID -19 Health Crisis.

Faced with the COVID-19 crisis, and in order to mitigate its economic and social impact, public authorities around the world have had to activate several instruments, both fiscal and monetary. In particular, to support businesses and encourage the recovery of activity, large-scale credit guarantee programs were put in place to maintain access to financing, especially

for SMEs, a category that is particularly fragile in difficult economic times. According to the IMF, public credit guarantees reached, at the end of 2020, nearly 4,000 billion dollars, i.e. 30% of the total amount of public support granted in the context of the crisis.

In Morocco, several credit guarantee lines have been set up by the Comité de Veille Economique as part of the authorities' response to the crisis. Thus, on March 26, 2020, less than a month after the detection of the first case of COVID-19 at the national level, a guarantee mechanism "Damane Oxygène" was set up with the Caisse Centrale de Garantie. Its objective is to facilitate access to financing for companies whose cash flow has deteriorated due to the drop-in activity, by granting a guarantee that covers 95% of the operating credits contracted.

By the end of 2020, 49,489 "Damane Oxygen" loans had been granted for a total disbursed amount of MAD 17.7 billion. After the confinement and with the gradual recovery of the activity, two new guarantee mechanisms "Relance TPE" and "Damane Relance" have been deployed on June 15, 2020 to promote the financing of working capital needs and accompany the economic recovery.

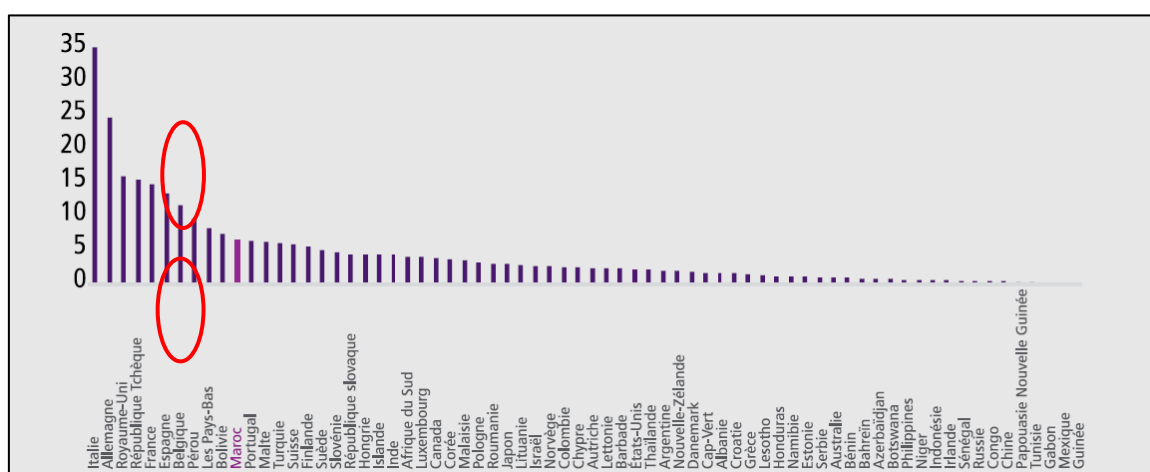


Figure 4: Public guarantee program for business loans set up in response to the COVID-19 crisis (Size as % of GDP)

Source: BAM, (2020), p. 140

The loans covered are for a period of 7 years, with a 2-year grace period and rates capped at the key rate plus 200 basis points. The product "Relance TPE" targets very small businesses with a turnover of less than 10 million dirhams, by providing a guarantee for 95% of the loans capped at 10% of the turnover.

The product "Damane Relance" is intended for companies with a turnover of more than 10 million dirhams. It provides a guarantee of 80% to 90% of loans, with a ceiling of 1.5 months' turnover for companies in the industrial sector and 1 month's turnover for companies in other sectors.

At the end of 2020, disbursed loans benefiting from these "Recovery" guarantees totaled MAD 35.3 billion. The deadline for the Relance programs, initially set at the end of 2020, was extended to March 31, 2021, then to June 30, 2021, and some relaxations were

made, in particular an increase in the amount of the loan, the easing of the guarantee conditions for certain sectors, as well as the extension of the coverage to insurance brokers, foreign exchange offices and money transfer companies. 54% of the "Oxygène" and "Relance" guarantee schemes benefited SMEs, 18% benefited very small companies and 28% benefited intermediate-sized companies (ETI) and large companies (GE). By sector of activity, 29% of the volume of loans went to the trade and distribution sector, 28.5% to industry, 15% to construction and 8% to services.

While credit guarantee programs have been an important instrument in mitigating the economic impact of the pandemic, exiting from these policies is a major challenge, especially since the survival of many businesses depends on them. These programs can continue to contribute to the post COVID recovery provided they are adjusted for greater efficiency in the use of public resources and better performance. In this regard, the World Bank suggests three possible directions:

1. Dealing with defaults by maximizing the recovery of funds provided to enterprises that have proven unviable and, for those that are viable, converting the guaranteed loans into equity instruments and transferring these exposures to other public institutions (such as development banks) or to a specialized investment vehicle;
2. Targeting enterprises by revising eligibility criteria to limit the benefit to specific target groups (such as viable enterprises with little debt) and reducing guarantee thresholds to normal levels.
3. Supporting a green recovery by redirecting financial flows to low-carbon activities.

Conclusion

Unconventional monetary policies highlight the variety of innovative and modernized instruments available to central banks to conduct their monetary policy. Even when they have already sharply reduced their key interest rates and even when the markets no longer function or banking intermediation is blocked, they still have powerful means of action to influence the cost of financing the economy and, in turn, strengthen the resilience of SMEs.

Unconventional measures can take several forms: (i) Steering agents' expectations by announcing that monetary policy rates will be kept low for a long period, (ii) Outright purchase of long-term financial assets, (iii) Easing of credit conditions, via, in particular, the expansion of accepted collateral, (iv) and finally quantitative easing through massive liquidity injections.

The unconventional monetary policies conducted by the FED and the ECB have had a direct impact on the structure and shape of the interest rate curve. They have led to a flattening of the American and European interest rate curves, causing a fall in long-term rates and a slight rise in short-term rates. The actions of the FED and the ECB have contributed to the easing of financing conditions for small and large companies, non-profit organizations, federal states and local governments.

At BAM, all conventional and unconventional instruments were used in all areas of intervention, including monetary policy, micro and macro-prudential supervision, foreign exchange reserve management, and the supply of cash and access to financial services. These measures have enabled companies in particular to benefit, on very favorable terms, from the financing needed to cope with the crisis and ensure the continuity of their activities.

Finally, it must be said that our paper has some limitations, namely money cycle index in times of crisis has not been analyzed in depth, encompassing all the factors that can mediate the relationship between innovative monetary policy instruments and SMEs resilience. A theoretical and empirical comparison (Challoumis, 2022) could help future researchers to study to what extent the money cycle contributes to SMEs resilience.

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THE ROLE OF THE PRIMARY DEALERS IN THE GOVERNMENT SECURITIES MARKET

Olesea SPEIAN¹

Abstract: Governments need money for good functioning. Following the COVID – 19 pandemic and the energy crisis, finding sources to cover the budget deficits has become a real challenge. One of the ways of accumulating funds is by issuing government securities through auctions. Thus, countries are continuously concerned about developing the domestic debt market to decrease the dependence on external creditors. The primary dealer system is the most widespread form of cooperation between the issuer and investors. The main goal of the research is to show the influence of the primary dealer system on the development of the government securities market. In order to meet the requirements of the debt manager's office they have to fulfil certain obligations. Despite the quantitative obligations of the primary dealers, the analysis focuses also on their qualitative aspects. Also, the paper presents a practical experience for selected countries regarding the evaluation of the activity of the primary dealers. The results of this research show a dependence between the development of the domestic government securities market and the methodology for evaluating the activity of the primary dealers.

Keywords: government securities, primary dealers, obligations, evaluation, auction.

JEL Code: D44, G18, H63

Introduction

To develop the government securities market, countries have implemented different policies regarding the obligations, privileges and methodologies for evaluating the activity of primary dealers. The development of the government securities market is closely related to the primary dealers' activity, which are the leading players in the issuing process of the government securities.

The prominent role of the primary dealers in the developed markets is to facilitate the distribution of government securities, but in emerging markets – to promote the development of the domestic debt market. The objectives of primary dealers may differ from country to country, but some basic ones can certainly be listed: (i) providing a stable demand for government securities; (ii) ensuring liquidity on the secondary market of the government securities; (iii) expanding the investor base; (iv) promoting the confidence of government securities market.

Analyzing the experience of some countries regarding the primary dealer system, the methodology for evaluating the activity of primary dealers influences the development of the government securities market. The issuer tends to realize its objectives by imposing certain obligations on them. In such relationships, both parties tend to achieve their

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primary goals: the issuer – to accumulate the funds at cheaper costs, and the primary dealers – to make a profit on government securities.

It is prestigious to be offered the title of the primary dealer. This may lead to closer relations with the Ministry of Finance and the Central Bank. It could be the possibility to buy government securities on relatively more advantageous financial terms. The most significant benefit is that primary dealers can buy government securities without fees.

For the government, the impact of the primary dealer system may be as follows:

- enhance market liquidity: the obligation to trade a particular volume of government securities, to quote, contributes to the increase of liquidity;
- stable demand for government securities;
- broaden investment base;
- improve price discovery;
- reducing debt costs: the more liquid the government securities, the easier for the investor to sell them and the costs are lower;
- risk management tool: as liquidity increases, more investors will be willing to buy government securities, which can easily be converted into cash, thus reducing liquidity risk;
- improving the yield curve: facilitates the issuance of corporate bonds;
- access to domestic sources: with the government securities market development, the government have access to a reliable source of financing the budget deficit; the dialogue with the primary dealers contributes to the planning of the state budget with greater accuracy; the higher the issue volume, the higher the earnings of the primary dealers;
- manipulation on the government securities market: primary dealers can agree to offer at the auctions low prices for government securities, not reflecting the actual situation on the market, to sell them later at higher prices; this leads to an increase in debt service expenditures and a subsequent increase in the deficit.

Taking into consideration the benefits from the primary dealers, the issuer introduces some obligations and a methodology of the evaluation the activity of the primary dealers. These depend on the level of the development of the government securities market and the financial market situation.

1. Primary dealers: selected countries' experience

To ensure the development of the government securities market, governments enter into agreements with intermediaries, usually banks, who act as primary dealers. They buy and trade government securities to satisfy the government's credit needs and the investors' interests (Baker, 1984). In the European Union, twenty-two countries have a primary dealer system, and only five countries do not have a primary dealers' system: Croatia, Cyprus, Estonia, Luxembourg, and Malta, where the syndication system is applied (Preunkert, 2020). In this case, there is a temporary association of banks that participate in the collective placement of bonds. This system is analogous to the primary dealer, only that

the governments pay the fee to the participating banks (is a tax that is paid to banks that participate at the syndication. Usually, the government does not pay to primary dealers), what is not a common practice in case of primary dealers' system.

Currently, the primary dealers' system is widespread worldwide (Figure 1).



Figure 1. Primary dealers globally

Source: Multilateral Cooperation Center for Development Finance.

In some countries, the market works well without primary dealers, in others, it is one of the preconditions for developing the local government bond market.

In 1960, the USA introduced the first primary dealers system and twenty-six years later it was introduced in Europe in the United Kingdom. The year of establishment of a primary dealers system differs from one country to another (Figure 2).

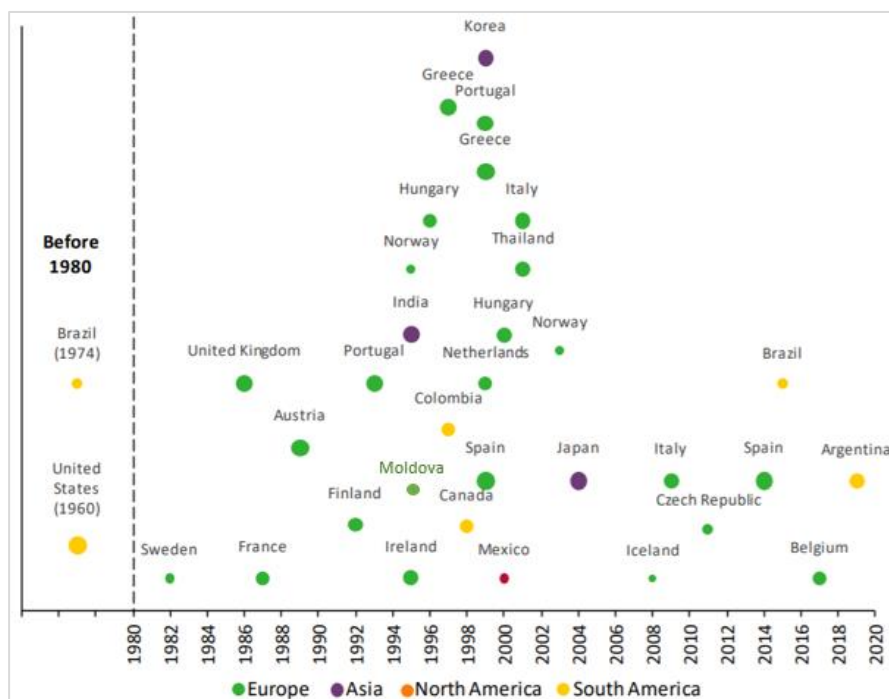


Figure 2. Year of the establishment of a primary dealer system

Source: Adopted by the author based on source Pedila (2019).

In the Republic of Moldova, the primary dealers system was introduced in 1995 (Radziwiłł, Șcerbațchi, & Zaman, 1999), long before developed countries like Japan, Italy and Iceland. Internationally, there is no concrete number or range regarding the number of primary dealers system. For instance, it can variate from five (Latvia, Sweden) to over eighteen primary dealers (Spain, Austria) (Figure 3).

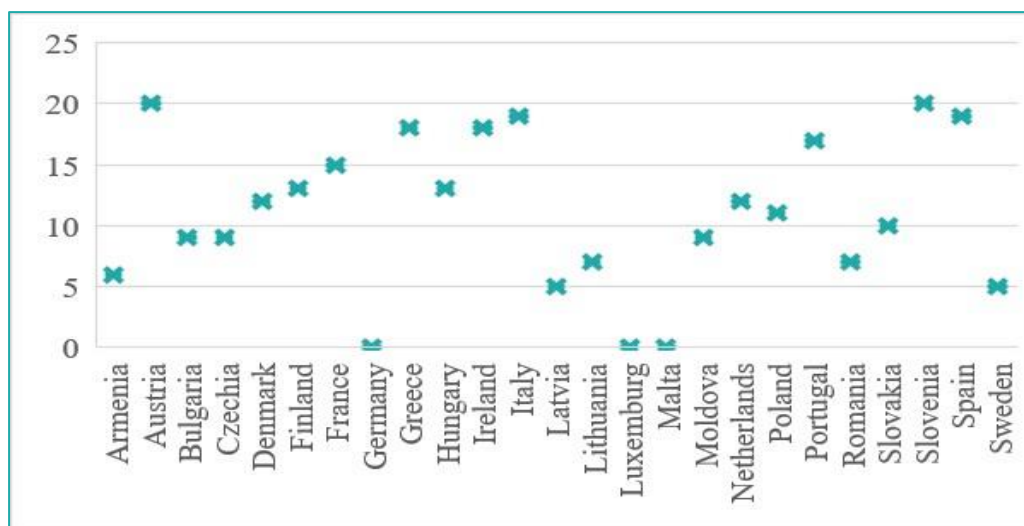


Figure 3. Number of primary dealers

Source: Author's elaboration based on websites of the countries.

The most selected countries have a number of primary dealers between five and fifteen. The institutions responsible for selecting and signing agreements with the primary dealers and supervising their activity are either the Ministry of Finance or the Central Bank. In some countries, both institutions are responsible. The procedure for offering status to the primary dealers differs from country to country. In Korea, for instance, the status of the primary dealer is offered in steps. First of all, it is given the title of the preliminary primary dealer, and later, if it meets all the conditions, it is offered the title of primary dealer (Kravchuk, Требеш, & Джуччі, 2007). Also, the status of the primary dealer may be revoked if the bank does not meet the terms of the agreement.

Usually, governments do not remunerate the activity of the primary dealers, with some exceptions. For instance, in Denmark, primary dealers are paid for their activity. The fee depends on their performance (AFME, 2020). However, for the activity carried out by them, the governments offer them some incentives: to participate in non-competitive bids after the auction, to reconstitute and exchange bonds, to have privileged access to syndicated issues, that is used for issuing bonds on the international capital markets (Ecofin, 2000), to be selected as the bank through which the state executes various payments and transfers, to be involved in the on-lending process or the issuance of Eurobonds.

Before signing the agreement between the issuer and the primary dealer, it has to meet specific criteria. The selection criteria in different countries can be both common and different (Table 1). It might depend on the goals of the issuer and the country's debt management policy. If it tends to develop more primary market then it will introduce stricter

conditions for this segment. In order to increase the liquidity on the secondary market, the specific requirement as the level of the turnover indicator and the minimum time of quotation might be introduced.

According to Table 1, one criterion is common for all selected countries – to be approved by a regulatory agency. Staff and technological resources are mandatory only in the United Kingdom, USA, Japan, and Moldova.

Table 1. Selection criteria for primary dealers

Country	Sufficient balance sheet capability	To be approved by a regulatory agency	Minimum market share/amount	Staff and technological resources	Viable business plan
United Kingdom	✓	✓	✓	✓	✓
USA	✓	✓	✓	✓	✓
India	✓	✓			✓
Japan	✓	✓	✓	✓	✓
Brazil	✓	✓			
Mexico		✓	✓		
Moldova		✓	✓	✓	

Source: Adopted by the author based on source Pedila (2019).

In exchange for privileges, primary dealers agree to perform certain obligations or functions in the government securities market (Arnone & Iden, 2003). In the primary market, some countries require a minimum amount of award to primary dealers, either by auction, either on quarter or yearly basis. Regarding the secondary market, a minimum trading volume may also be imposed. The essential requirement of the primary dealer is to fulfil the market maker' role (Table 2).

Table 2. Primary dealers obligations

Country	Minimum participation in every auction	Participate in every auction	Provide information and data	Maintain a minimum market share	To avoid distortion to auction prices
United Kingdom	✓	✓	✓	✓	
USA	✓	✓	✓	✓	✓
India	✓	✓	✓	✓	✓
Japan	✓	✓	✓	✓	✓
Brazil	✓	✓	✓	✓	✓
Mexico	✓	✓	✓	✓	✓
Moldova			✓	✓	

Source: Author's elaboration based on source Pedila (2019).

The common obligations for all selected countries are to provide information and to maintain a minimum market share or amount of government securities.

To develop the government securities market, governments use different methodologies for evaluation the primary dealers' activity (Table 3, 4 and 5).

For the activity on the primary market in Czech Republic primary dealers receive 10 points more than on the secondary market. The highest points on the primary market are awarded for the treasury bills share. On the secondary market, almost all the indicators have 10 points, and only for buy-bank and exchange operations are five points.

Table 3. Criteria for evaluation of primary dealers, Czech Republic

Primary market	55 points	Secondary market	45 points
Primary auction share – T-Bonds	30 points	Quoting obligations performance	10 points
Dependability	5 points	Qualitative performance	10 points
Auction pricing strategy	5 points	Traded volume	10 points
Auction participation	5 points	Ministry of Finance market operations	10 points
Primary auction share T-Bills	10 points	Tap issuance, buy-backs and exchange pricing strategy	5 points

Source: Author's elaboration based on the Ministry of Finance of Czech Republic.

In Greece, primary dealers receive more points for the activity on the secondary market than on the primary. The most points are for the activity related to the yield curve (Table 4).

Table 4. Criteria for evaluation of primary dealers, Greece

Criteria	points
Trading volume in the primary market	20 points
Secondary market	25 points
Yield curve	37 points
<i>Number of quotes displayed</i>	<i>10 points</i>
<i>Abstention time</i>	<i>15 points</i>
<i>Bid-ask spread</i>	<i>5 points</i>
<i>Daily Compliance Report</i>	<i>7 points</i>
Further contribution to the Greek government bond market	18 points

Source: Author's elaboration based on Public Debt Management Agency of Greece.

The assessment of the primary dealers from Greece highlights the yield curve's importance. A reliable yield curve can help investors take managerial decisions and the issues to set up the coupon rate for new issuances.

In the Republic of Armenia, the index on primary market participation is based on competitive allocations in primary auctions on issuance and buy-backs, and it includes two indicators: the share of allocation for a primary dealer in the total allocation and the share of allocation for a primary dealer in the total bid submitted by the primary dealers. The index on secondary market activity is a weighted average index of the share of the exchange (NASDAQ-OMX) and OTC trading operations of a particular primary dealer in the total daily volume of trading activity. Secondary market activity in the NASDAQ exchange is given 60 percent weight, while the OTC market is assigned a weight of 40

percent. The assessment is done by five officials to ensure that the assessment is based on objective considerations and no personal opinions influence the ranking (Table 5).

Table 5. Criteria for evaluation of primary dealers, Republic of Armenia

Criteria	percent
Primary market	40 percent
Secondary market	50 percent
Work with issuer	10 percent

Source: Author's elaboration based on Ministry of Finance of the Republic of Armenia.

In Armenia the maximum number of points given to a primary dealer for quarterly evaluation is seven.

To evaluate the level of the development of the government securities market, it is important to consider the level of development because the same principles cannot be used. For instance, in a developed market, the demand of the primary dealers depends on the number of their customers and their role in the secondary market (Allen, Kastl, & Wittwer, 2020).

2. Moldovan primary dealers system

Before 2018, the National Bank of Moldova used to sign agreements with the primary dealers. Their obligations depended on asset level:

- At participation at the auctions:

1) primary dealers whose asset level is greater than or equal to 1.0 billion MDL participate in each auction;

2) primary dealers whose asset level is less than 1.0 billion MDL participate in at least 50% of the total number of auctions for the sale of government securities carried out during a month.

- Adjudicate during each quarter government securities in a minimum amount of:

1) 2.0% of the average quarterly volume provided by the Ministry of Finance during the previous four quarters – for primary dealers whose asset level is greater than or equal to 1.0 billion MDL;

2) 1.0% of the average quarterly volume provided by the Ministry of Finance during the previous four quarters – for primary dealers whose asset level is less than 1.0 billion MDL.

- Contributes to creating the liquidity of the secondary market, performing quarterly transactions in a minimum volume of 1.5% of the total volume of sale/purchase transactions performed with government securities in the previous quarter by all primary dealers (except open market of the National Bank).

Starting with implementation of new Regulation (2018), the Ministry of Finance is responsible for the selection and signing of the agreements with primary dealers. The access criteria and the obligations of the primary dealers have been modified (Figure 4).

Actual obligations are not based on the asset level of the bank. Primary dealers have additional obligations: (i) to buy minimum 3% of the total adjudicated amount by the Ministry

of Finance in the evaluation period, (ii) the weighted value of the government securities purchased in own name and account is minimum 2% of the total weighted value adjudicated by the Ministry of Finance, (iii) to trade minimum 3% from the total volume of the transactions made in the previous quarter, (iv) to quote daily from 10:00 am – 2:00 pm 100 thousand MDL to the nominal value of the government securities issued at the last two auctions.

Selection Criteria
<ul style="list-style-type: none"> • during 3 months before the bank purchased minimum 3% of the total amount granted by the Ministry of Finance in the respective period; • the bank complies with the requirements for own funds and capital established by the regulatory acts of the National Bank; • the National Bank did not decide on the application of supervisory measures; • to hold a settlement account at the National Bank of Moldova; • is a participant to the Central Depository; • has separate space which is necessary for the development of government securities operations and qualified staff; • has appropriate technical equipment; • has own procedures on the working methods with clients.
Obligations
<ul style="list-style-type: none"> • to act as intermediaries between the issuer and investors; • to assure the liquidity of the market by promoting the government securities transactions in the secondary market; • in own name and account, to purchase minimum 3% of the total amount allocated by the Ministry of Finance; • the weighted value of government securities purchased in own name and account shall constitute minimum 2% of the total weighted value allocated by the Ministry of Finance; • to contribute to the creation of liquidities in the secondary market of government securities, by making quarterly transactions in own name and account, of minimum 3% from the total volume of transactions made in the previous quarter; • The minimal daily quotes in E-bond are the following: (i) submission of sale and purchase quotes for government securities issued at the last two auctions, during 4 hours, in the time period 10:00 am – 2:00 pm; (ii) the minimal volume of government securities with a sale and purchase quote shall amount to MDL 100 thousand to the nominal value.

Figure 4. Selection criteria and obligations of the primary dealers

Source: Author’s elaboration based on Regulation on Placement, Transaction and Redemption of Government Securities in Book-Entry Form, approved by the Executive Board of the National Bank of Moldova no.170/2018 and the Order of the Minister of Finance no.129/2018.

The new obligations contributed to the improvement on the primary market (Figure 5).

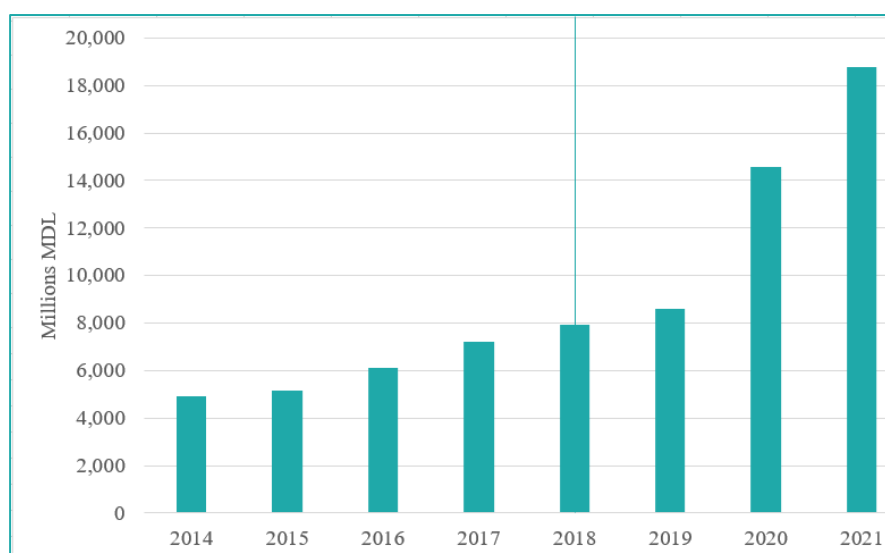


Figure 5. Government securities issued in the primary market

Source: Author’s elaboration based on Ministry of Finance of the Republic of Moldova.

The volume of government securities issued on the primary market is increasing from 4.9 million MDL to 18.8 million MDL. A sudden increase is in 2019. The primary dealers must fulfil their obligations, to be active in the primary market.

New obligations have a positively influence not only in the primary market but also in the secondary market (Figure 6).

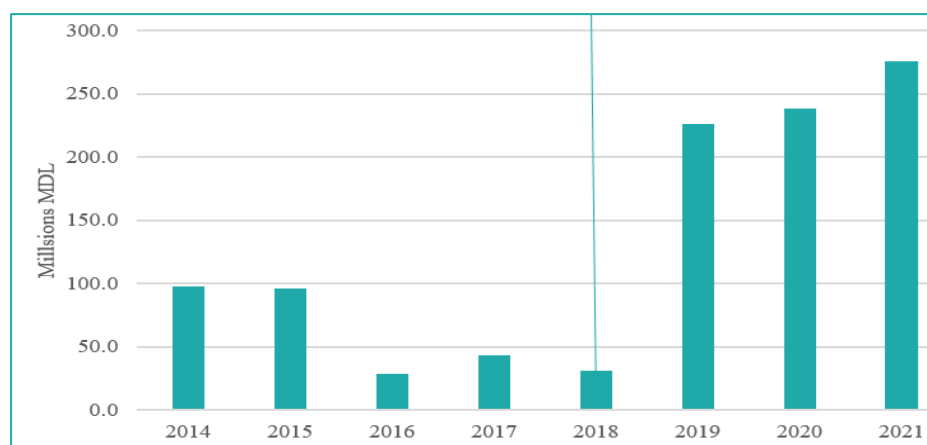


Figure 6. Government securities traded in the secondary market

Source: Author's elaboration based on source of National Bank of Moldova and Ministry of Finance.

The traded volume in the secondary market increased from 29.0 million MDL to 276.0 million MDL. In 2019 the traded volume in E-bond system increased considerably in comparison with before 2018. This is also explained by the new obligation of the primary dealers related to the secondary market.

For the development of the government securities market in addition to new obligations, a complex methodology was implemented to evaluate the activity of the primary dealers, which takes into account the activity in the primary and secondary market and also from the point of view of qualitative criteria (Table 6).

Table 6. Evaluation criteria of the activity of the primary dealers, Republic of Moldova

Primary market	45 points	Secondary market	40 points	Qualitative criteria	15 points
T-Bonds volume	20 points	T-Bonds volume	25 points	Activity on the primary and secondary market	10 points
T-Bills volume	15 points	T-Bills volume	15 points	Marketing and distribution	5 points
Acceptance rate	5 points				
Regularity of purchasing debt securities	5 points				

Source: Author's elaboration based on Regulation on Placement, Transaction and Redemption of Government Securities in Book-Entry Form, approved by the Executive Board of the National Bank of Moldova no.170/2018 and the Order of the Minister of Finance no.129/2018.

The maximum number of points which can be obtained by a primary dealer is 100. The highest score is for the activity in the primary market, followed by the secondary market and qualitative criteria. Based on this evaluation results, the annual ranking of primary dealers is made. The Ministry of Finance may decide on the termination of the validity of primary dealer status for the dealers which are positioned in the last two places of the ranking. The new evaluation of the primary dealers increased the competition between them, and, as a result, the volume of the government securities issued in the primary market increased and, also, there is an improvement of the liquidity of the secondary market.

3. Data and methodology

The purpose of the economic modelling is to determine the factors influencing the volume of the government securities issued by the Ministry of Finance of the Republic of Moldova. In this case, the author uses the data of the National Bank of Moldova for the period January 2012 – June 2022. The variables used in the model are represented in Table 7.

Table 7. Description of the variables

Symbol	Variable	Description	Units
GS	Government securities	The volume of the government securities issued by the Ministry of Finance	Thsnd. MDL
OF	Offered amount	The volume of the government securities offered by the Ministry of Finance	Thsnd. MDL
NR	Number of participants	Number of participants in the auctions	Units
MA	Maturity	The number of days from the settlement date to maturity date of the government securities	Days

Source: Author's elaboration.

Government securities is the dependent variable, and *offered amount*, *number of participants*, and *maturity* are the independent variables. In Table 8 there is a descriptive statistics of the variables.

Table 8. Descriptive statistics of the variables

Variable	Mean	Std. Dev.	Minimum	Maximum	Obs.
GS	78 747	105 420	0	970 059	1 646
OF	96 933	159 498	5 000	1 200 000	1 646
NR	10	2	0	15	1 646
MA	380	400	20	2 557	1 646

Source: Author's elaboration.

The minimum value of the volume of the government securities issued by the Ministry of Finance and the number of participants in the auction is 0. This happens in case there is no demand from the participants in the auction and, respectively, the adjudicated volume of the government securities is 0. The offered amount announced by the Ministry of Finance varies from 5 million to 1 200 million MDL, depending on the need to finance the budget deficit. The maturity of the government securities is from 20 days up to 7 years.

At the moment, the shortest maturity of the government securities issued in the primary market is 91 days, and the maximum maturity is 7 years.

Using the EViews 9.5 software package, the author has developed the following model:

$$GS = 0,56 \times OF + 2\,878,80 \times NR - 10,44 \times MA \quad (1)$$

Equation 1 was estimated using the least squares method (Table 9).

Table 9. The results of testing the quality of model 1

Variable	coefficient	standard error	t-statistic	p-value
OF	0.5578	0.0085	65.7236	0.0000
NR	2878.7790	179.6529	15.9853	0.0000
MA	-10.4365	2.9692	-3.5148	0.0005
	Value			
R-squared	0.7231			
Adjusted R-squared	0.7227			
Durbin-Watson statistic	1.2631			
Akaike info criterion	24.6883			
Schwarz criterion	24.6982			
Hannan-Quinn criterion	24.6920			

Source: author's elaboration

The Durbin-Watson statistic shows that in model 1 there is autocorrelation, because the result for significant level 0.05 is less than d_L (1,915) In this case, for removing the autocorrelation it is introduced the variable AR(1) as independent variable (equation 2).

$$GS = 0,54 \times OF + 3\,581,05 \times NR - 22,13 \times MA + [AR(1) = 0,40, UNCOND, ESTSMPL = '1\,1646'] \quad (2)$$

The results of testing equation 2 are represented in Table 10.

Table 10. The results of testing the quality of model 2

Variable	coefficient	standard error	t-statistic	p-value
OF	0.5407	0.0044	122.2721	0.0000
NR	3581.0500	418.2729	8.5615	0.0000
MA	-22.1304	3.4692	-6.3791	0.0000
AR(1)	0.3954	0.0066	59.7085	0.0000
SIQMASQ	2.63E+09	34412659	76.3872	0.0000
	Value			
R-squared	0.7633			
Adjusted R-squared	0.7627			
Durbin-Watson statistic	2.0012			
Akaike info criterion	24.5338			
Schwarz criterion	24.5502			
Hannan-Quinn criterion	24.5399			

Source: author's elaboration

The second model shows that 76,3% of the volume of the government securities issued is influenced by these independent variables. The remaining 23,7% depends on other factors. The chosen significant level is 0.05. According to p-value, all the results are 0.0000 that means the null hypothesis, the variables are not significant, is rejected and it is taken an alternative hypothesis. All variables are significant.

In model 2 the Durbin-Watson statistic level is greater than d_u (1,925), that means that the null hypothesis, positive autocorrelation does not exist, cannot be rejected. In model 2 there is not autocorrelation.

According to equation 2, the number of participants has the greatest influence on the volume of issued government securities. As well, the volume of offered amount positively influences the volume of the government securities issued in the primary market through the auctions. In the case of the maturity of the government securities, it influences negatively. This happens because investors in government securities are interested in buying short term government securities because the risk is lower. Usually, higher maturity means higher interest rate. Investors expect higher yields for longer maturity, which is not convenient for the issuer, because it contributes to higher expenditure for debt service.

Conclusions

The main objectives of the primary dealer system are:

- to support the development of the domestic debt market;
- to help the debt manager's office to meet funding needs;
- to help building a reliable demand for debt securities;
- to help broadening the investor base;
- to provide liquidity in the secondary market.

Considering the primary dealers' influence on the government securities market, the governments have introduced different evaluation methodologies. Some countries require a minimum amount of award to primary dealers, either by auction, quarter, or year. Regarding the secondary market, a minimum trading volume may also be imposed. Others add qualitative obligations. Depending on the government's needs, the methodology is changing. If the government wants to develop a specific segment of the primary market, it will introduce more points for this or introduce new evaluation indicators.

With the introduction of the new evaluation method on the activity of the primary dealers in the Republic of Moldova, the primary and secondary market as well have improved essentially. The model shows that the number of participants in the auction positively influences the issued volume of the government securities, because it has the highest positive coefficient. The same, offered volume in the auction influences positively the issued volume of the government securities. This happens because 3% of the offered volume shall be announced for placement at the auctions for the ordinary non-competitive bidding for the clients of primary dealers. Taking into account its coefficient it influences less than number of participants in the auction. Only maturity of government securities influences negatively the issued volume, having a negative coefficient.

Considering permanent changes in the financial market it is important to update the evaluation methodology. However, the essential requirement of the primary dealer is to fulfill the role of the market-maker.

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TRENDS IN THE DEVELOPMENT OF THE AUDIT SERVICES MARKET IN THE REPUBLIC OF MOLDOVA

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Abstract: *The development of the audit services market is an indicator of the development of the economy of any country. Since, on the one hand, audit firms as economic agents conduct their business and various changes in such an environment appropriately affect the financial performance of such firms. On the other hand, audit firms express their opinion on the financial statements of various audited enterprises and the types of such opinions can reveal a picture of the state and disclosure of financial information of enterprises. It should be noted that in the Republic of Moldova, the audit market has both common features related to the world market of audit services, and there are national peculiarities. Conducting a study of the audit services market, the author analyzed various indicators of audit firms of the Republic of Moldova, both financial and non-financial, as a result of which conclusions were drawn about the peculiarities of the development of the audit services market in the Republic of Moldova and the prospects for the development of this market in the future.*

Keywords: *audit, analytical indicators, audit services market, IAS, audit firms.*

JEL Code: *M42*

Introduction

The audit services market is the same age as the Republic of Moldova, its origin occurred in the nineties of the last century, when in 1991 the Government of the Republic of Moldova adopted Resolution No. 316 "On the organization of audit services in the Republic of Moldova". Intensive development of audit services in Moldova required improvement of the legislative framework in the field of audit. In this regard, the Law "On Auditing Activities" No. 729-XIII of February 15, 1996 was adopted. It should be noted that changes in the economic field, the application of International Auditing Standards, required modification of the regulatory and legislative framework in the field of auditing. And, as a result, on March 16, 2007, Law No. 61 "On Auditing Activities" was published. Currently, Law No. 271 of 15.12.2017 "On the audit of financial statements" is in force, which is compiled in accordance with the requirements of Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC. The analysis of the development of the audit

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services market should be considered in a complex that covers the number of audit firms, the evolution of the number of auditors, the types of services that audit firms represent, the volume of the audit services market. It should be noted that the indicators of the audit services market, on the one hand, show trends that occur in audit firms as business units, on the other hand, reflect the changes that occur in the audited enterprises.

The purpose of the study is to analyze the audit services market in the Republic of Moldova, to assess the potential of this market, its development trends and forecast its state in the future.

The objectives of the research are:

- analysis of the main non-financial indicators of audit firms in the Republic of Moldova in dynamics,
- analysis and assessment of the main financial indicators of audit firms in the Republic of Moldova in dynamics,
- presentation of conclusions about the features and trends of the audit services market in the Republic of Moldova and forecasting its development in the future.

The study of the development trend of audit services in the Republic of Moldova was carried out by the author in the following sections of the article:

1. Literature review - both international and national regulations are presented, which guide the audit firms of the Republic of Moldova when providing their services,
2. Data and Methodology considered goals, objectives and research methods,
3. The Model and Findings, in this section, a direct study of financial and non-financial indicators was carried out,
4. Conclusions. This section presents conclusions and forecasts about the trends in the development of the audit services market in the Republic of Moldova.

1. Literature review

During the study, the normative and legislative acts of the Republic of Moldova were analyzed in dynamics, as well as international normative acts, such as:

- Resolution of the Government of the Republic of Moldova No. 316 “On the organization of audit services in the Republic of Moldova”,
- Law “On Auditing Activities” No. 729-XIII dated February 15, 1996,
- Law “On Auditing Activities” No. 61 dated March 16, 2007,
- Law “On Audit of Financial Statements”, No. 271 of December 15, 2017.
- Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on the statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC.

It should be noted that this article is one of the first studies on the market of audit services in the Republic of Moldova. It examines both financial and non-financial

indicators, analyzes the trends in the development of audit services in the Republic of Moldova, and also provides forecasts for the development of this market in the future.

2. Data and Methodology

In this article, the author uses various research methods related to both general and particular research processes.

The general scientific methods used by the author are:

- the historical method, involves the study of different processes, phenomena in chronological order;
- study and generalization, analysis of results and information obtained;
- comparison;
- synthesis;
- induction and deduction;
- analogy;
- classification.

All calculations were made based on the data presented in the Report ``Information regarding the market of audit services`` 2015-2021 compiled by the Audit Supervision Council of the Republic of Moldova.

3. The Model and Findings

We will analyze the development of the audit market, considering the trends in the main indicators of audit firms in the Republic of Moldova over the past decade, the information is presented in table 1.

As follows from the data presented in Table 1, the number of audit firms in the Republic of Moldova has tended to decrease over the past 7 years, as well as the number of auditors, which decreased from 291 in 2015 to 236 in 2021. A positive moment can be considered an increase in the number of trainee auditors, which in relative terms compared to 2015 amounted to 102.5%. It should be noted that about 90% of audit firms are located in the capital of Moldova - Chişinău.

If we consider the trend for audit firms in Romania, then according to the CAFR annual report for 2021 (CAFR, 2021) there is an increase in the number of audit firms in Romania from 960 in 2017 to 1013 in 2021, but the number of auditors decreased from 4467 to 4245, respectively. Analyzing the trends in the emergence of new audit firms, the termination of their activities, we can state that these figures are influenced by various factors, first of all, all over the world this activity is strictly regulated by the state, all auditors must have certificates. If the state establishes some excessive requirements for the activities of audit firms, then their reduction is observed. For example: in Russia, a requirement was adopted by law for audit firms to have at least 3 employees, so since July 2022, more than 300 audit firms have ceased operations.

Table 1 Indicators of the evolution of the audit market in the Republic of Moldova in dynamics

Indicators/year	2015	2016	2017	2018	2019	2020	2021	Growth rate compared to 2021, %					
								2015	2016	2017	2018	2019	2020
A	1	2	3	4	5	6	7	8=7/1*100	9=7/2*100	10=7/3*100	11=7/4*100	12=7/5*100	13=7/6*100
Number of audit entities, of which:	121	120	113	115	101	114	119	98,35	99,17	105,31	103,48	117,82	104,39
audit entities in Chisinau	107	107	101	101	101	105	109	101,81	101,81	107,92	107,92	107,92	103,81
Number of auditors	291	297	211	200	193	232	236	81,10	79,46	111,85	118,00	122,28	101,72
Number of trainee auditors	*	*	18	23	21	22	24	-	-	133,33	104,35	114,29	109,09
total employees, of which:	*	367	590	577	544	592	607	-	165,40	102,88	105,20	108,82	102,53
auditors	*	209	211	200	191	196	193	-	92,34	91,47	96,50	101,05	98,47

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

Considering the trends in the establishment of audit firms in the Republic of Moldova, one can analyze the data in Figure 1.

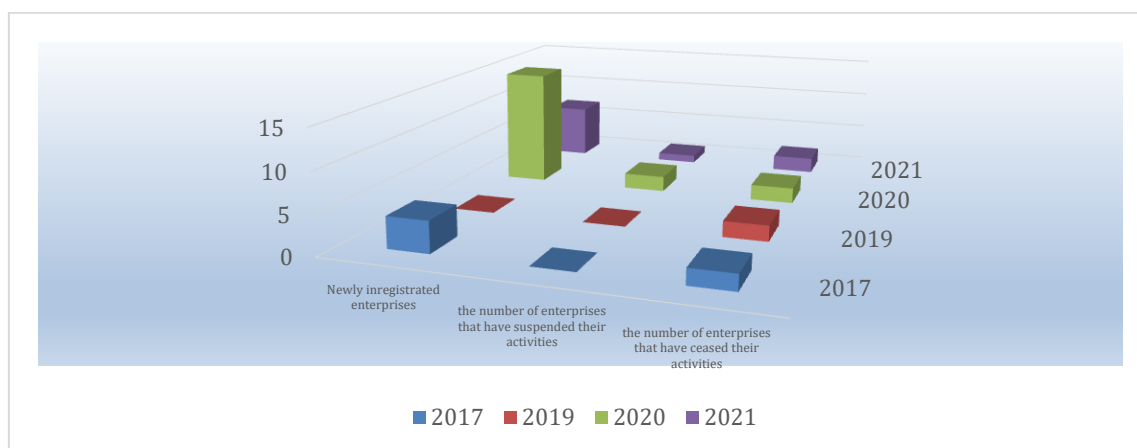


Figure 1. Information on changes in the number of audit firms in dynamics

Source: elaborated by author according data from (Information regarding the market of audit services 2015-2021 in Moldova)

Studying the data in Figure 1, it can be stated that from 4 to 7 new firms are registered in the Republic of Moldova per year, with the exception of 2020, when a number of audit firms needed to be re-registered. Every year, 2 audit firms cease their activities.

In the Republic of Moldova there are audit firms with foreign capital, mixed and firms that were created with the help of national capital.

Examining the data reflected in Table 2, we can state the following:

- 1) With an increase in the number of audit firms in the Republic of Moldova from 2015 to 2021 by 105.31%, the number of audit firms with foreign capital, having decreased by one in 2019, remains unchanged 6 units. This situation suggests that the audit services market of the Republic of Moldova is not so voluminous as to be attractive to foreign capital;
- 2) At the same time, there is an increase in audit firms with mixed capital, almost twice as compared to 2017;

Table 2. The evolution of audit firms according to ownership in Republic of Moldova

Indicators /year	2017	2018	2019	2020	2021
total audit firms of which:	113	115	101	114	119
audit firms with foreign capital	7	7	6	6	6
audit firms with mixed capital	1	1	1	2	2
audit firms with national capital	105	107	94	106	111
the share of audit firms with national capital	92,92	93,04	93,07	92,98	93,28

Source: elaborated by author according to the data from. (Information regarding the market of audit services 2015-2021 in Moldova)

3) The number of audit firms with national capital shows steady growth, this is especially evident in the share of audit firms in the total number of firms, which increased from 92.92% in 2017 to 93.28% in 2021.

The audit services market in the Republic of Moldova for 2021 is slightly more than eleven million Euros for 2021. Let's analyze the indicators of revenue from sales of audit firms in dynamics in Republic of Moldova.

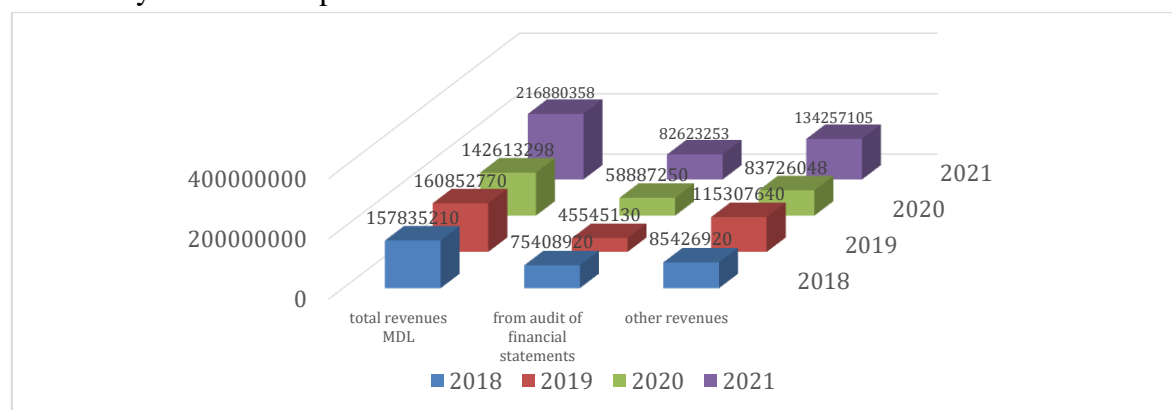


Figure 2. Revenues of audit firms in Moldova in dynamics

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

At the same time, there is a negative trend towards a decline in sales revenue from the audit of financial statements, which is reflected in table 3.

Table 3. Types of revenue from sales of audit firms in Moldova in dynamics

Indicators /year	2018	2019	2020	2021
total revenues MDL, of which:	157835210	160852770	142613298	216880358
1.from audit of financial statements, of which:	75408920	45545130	58887250	82623253
audit on request	46750940	13983830	16167260	16571531
2. other revenues	85426920	115307640	83726048	134257105
share of revenue from the audit of financial statements in total income	47,78	28,31	41,29	38,10

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

The growth of other services provided by audit firms includes a positive trend from the provision of consulting services, including in the field of taxation, maintenance and restoration of accounting. At the same time, it should be noted that the emerging growth trend of audit firms that provided only audit of financial statements in 2021 was suspended, as evidenced by the data in Table 4.

Table 4. Types of services provided by audit firms in Moldova in dynamics

Indicators /year	2017	2018	2019	2020	2021
total audit firms that provided information, of which:	113	115	101	112	113
audited the financial statements	5	8	15	13	3
rendered services other than audit	37	40	32	32	32
firms that conducted audits and provided other services	66	58	41	53	73
had no activity	5	9	13	14	5
the share of audit firms that only perform audits	4,42	6,95	14,85	11,6	2,65
the share of audit firms that had no activity	4,42	7,82	12,87	12,5	4,42

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

From 2017 to 2020, there has been an increase in audit firms that did not have activities and this growth was significant from 4.42% in 2017 to 12.5% in 2020. This may be due to the period of suspension of activities in connection with COVID 19.

If we analyze the indicators of revenues from sales of Moldovan audit firms and global trends, we can state the following:

1) According to Verified Market Research (Verified Market Research, 2022) auditing services market size was valued at USD 215 Billion in 2020 and at USD 217.7 Billion in 2021, the growth was 101.26%, respectively in the Republic of Moldova - 152.03%. Revenue growth in the Republic of Moldova is significant, but this is not

indicative, since the period of 2020 is characterized by a pandemic and the abolition of the mandatory audit of financial statements (FS);

Table 5. Indicators of the evolution of the audit market in the Republic Of Moldova in dynamics

Indicators /year	2015	2016	2017	2018	2019	2020	2021	Growth rate compared to 2021, %					
								2015	2016	2017	2018	2019	2020
A	1	2	3	4	5	6	7	8=7/1 *100	9=7/2 *100	10=7/3 *100	11=7/4*1 00	12=7/5 *100	13=7/6 *100
Number of audited entities	121	120	113	115	101	114	119	98,35	99,17	105,31	103,48	117,82	104,39
Total audit contracts, including:	868	723	592	558	416	483	662	55,65	66,81	81,59	86,56	116,11	137,06
Compulsory audit contracts	331	208	198	180	193	271	507	81,87	130,3	136,9	150,56	140,42	187,08
Share of contracts for compulsory audit, %	38,13	28,77	33,45	32,26	46,39	56,11	76,59	147,16	195	167,7	182,65	120,93	136,49
Contracts for the audit of public entities	31	32	28	28	37	39	35	125,81	121,9	139,3	139,29	105,41	89,74
Share of contracts for the audit of public entities	3,57	4,43	4,73	5,02	8,89	8,07	5,28	226,05	182,2	170,6	159,8	90,78	65,43
Contracts for the required audit of individual FS	506	483	366	350	186	173	472	34,19	35,81	47,29	49,43	93,01	272,83
Share of contracts for the required audit of FS	58,3	66,8	61,82	62,72	44,72	35,82	71,3	61,44	53,62	57,94	57,11	80,1	199,05

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

2) According to studies carried out by Verified Market Research, (Verified Market Research, 2022) more than 70% of the revenues of audit firms come from audit services (audit of financial statements, operational audit, investigation audit, etc.), while in the Republic of Moldova the share of revenue for audit financial statements is steadily declining and is 38.1% in 2021. Considering the data in Table 5, we can state that the number of mandatory audits is steadily increasing.

It can be noted that if in 2015 the share of mandatory audit was 38.13% of all audit contracts, then in 2021 it is already 76.59%. This upward trend is explained by the fact that changes have been made to the regulatory and legislative acts of the Republic of Moldova

and the categories of persons for whom the annual audit of financial statements has become mandatory have been expanded.

At the same time, audit firms conducted not only an audit of financial statements, but also an audit of individual elements of financial statements, as well as a compliance audit. In this case, an audit report was also issued, the figure below shows information on the number of audit reports issued in the Republic of Moldova in dynamics.

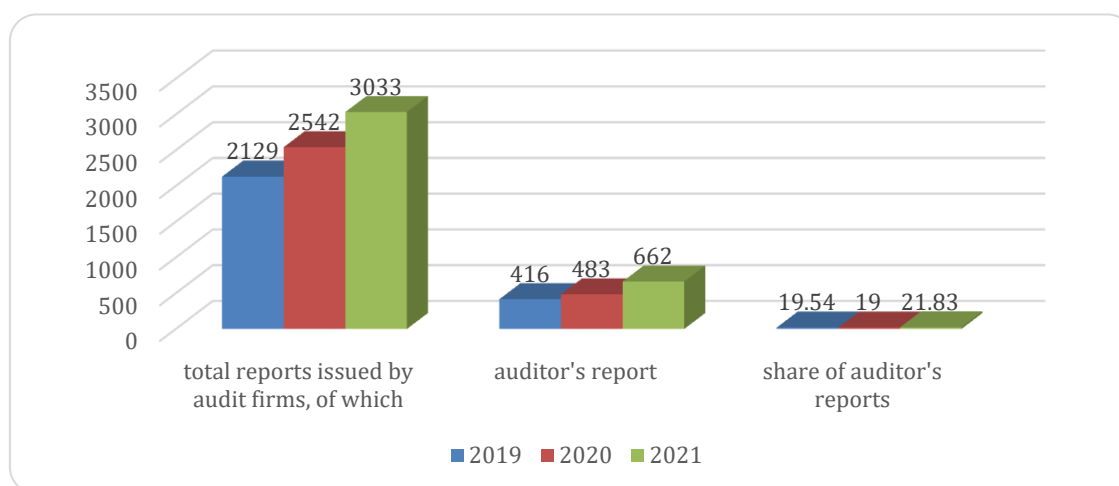


Figure 3. Dynamics of auditor's report issued by audit firm in Moldova

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

A positive trend can be characterized by the growth of issued financial statements audit reports in the total number of reports issued by audit firms from 19.54% in 2019 to 21.83% in 2021.

Table 6. Types of audit opinion reflected in the auditor's report

Indicators /year	2017	2018	2019	2020	2021
form of opinion	645	579	416	483	662
unmodified opinion	477	421	236	290	353
qualified opinion	150	143	159	178	293
adverse opinion	8	3	7	6	7
disclaimer of opinion	10	12	15	4	9
Share of unmodified opinion, %	73.95	72.71	56.73	60.04	53.32

Source: elaborated by author according to the data from (Information regarding the market of audit services 2015-2021 in Moldova)

At the same time, there is an ambiguous trend of a decrease in the unmodified opinions issued by audit firms, their share decreased from 73.95% in 2017 to 53.32% in 2021. The number of adverse opinions of the auditor varies from 3 to 7-8 per year, that is, they remain approximately at the same level. It should be noted that the number of qualified audit opinions has increased dramatically from 150 in 2017 to 293 in 2021.

Conclusions

Analyzing the trends in the market of audit services in dynamics in the Republic of Moldova, we can state the following:

1) The audit services market has a number of features that relate to strict regulatory regulation; to open such a company, you must have at least one certified auditor. Obtaining an auditor's certificate is a process that involves not only passing exams, but also completing the practice of an auditor trainee. Thus, the creation of audit firms in the Republic of Moldova is a process that takes time. However, since 2017, the same number of audit firms have been observed in the Republic of Moldova that have ceased their activities. As a negative trend, it should be noted that in the Republic of Moldova there is no inflow of foreign capital for the creation of audit firms,

2) The market of audit services in the Republic of Moldova depends on the provisions of the regulatory and legislative acts in this area. So, for example: amendments were made to the Law on Accounting and Financial Reporting of the Republic of Moldova on the statutory audit of large and medium-sized enterprises, starting from 2019, and thus the income from the audit of the financial statements of audit firms in Moldova increased,

3) Due to the epidemiological situation in the world, the growth of revenue of audit firms in many countries, including Moldova, slowed down in 2020. However, it should be noted that in the revenue structure of audit firms at the global level, more than 70% is revenue from the audit of financial statements, while in the Republic of Moldova this figure does not reach 40%. This suggests that the capacity of the financial report audit market in the Republic of Moldova is small and in order to survive financially, local audit firms must provide various services in addition to auditing: consulting, maintaining and restoring accounting, etc.

4) There has been a tendency to decrease positive audit opinions during the audit of financial statements from 73.95% of the total in 2017 to 53.32% in 2021. This fact indicates the increased responsibility of auditors, the in-depth application of quality control procedures in the performance of the mission, as well as a decrease in the quality of information in the financial statements audited entities.

Forecasting the development of the audit services market in the Republic of Moldova, we can state the following:

1) in terms of the audit of financial statements: it is necessary to consider two of its components: a statutory audit and an on-demand audit. An increase in sales revenue from statutory audit should not be expected, this amount will be at the level of 2021. Since the mandatory audit is strictly related to the established requirements of the legislation on the list of those enterprises that are required to be audited, in this regard, changes in the legislation are not expected. From the point of view of on-demand audit development trends, a slight growth of this audit segment at the level of 1-2% per year is possible. Thus, it can be assumed that next year the growth in revenues of the audit firms of the Republic of Moldova from sales in terms of the audit of financial statements will be up to 2%.

2) in terms of other services provided by audit firms:

- advising in the field of taxation may increase by 5-10%, primarily because in connection with the acceptance of the Republic of Moldova by an EU candidate, both residents and non-residents of the Republic of Moldova will need consultations in this area,
- on accounting: one should not expect an increase in the income of audit firms, as more and more enterprises in the Republic of Moldova prefer to have an accounting service, rather than outsourcing services. A slight increase in other services of audit firms is possible, especially in the preparation of consolidated financial statements, confirmation of forecasting information, etc.

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PECULIARITIES OF THE BRANCHES OF LAW IN ANCIENT CHINA

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Abstract: *The purpose of this paper is to examine the historical roots of the Chinese legal system who is one of the oldest in the world. China's legal system is largely a civil law system, although found its root in Great Qing Code and various historical system. The analyses of the Chinese law documents led to results that largely confirm that the Chinese have written their own laws since ancient times, a peculiarity which compares them, for the historical and characteristic period, with the Romans. Chinese law is a legal system integrated into a certain philosophical conception, namely Confucianism. The research methods used were: analysis, synthesis, deduction, analogy and comparison. The analysis of the Chinese legal system have allowed to reveal that different branches of law as civil law, family law, administrative law, and criminal law have some peculiarities in ancient Chinese laws that were presented in this article.*

Keywords: *law, ancient China, civil law, family law, administrative law, criminal law*

JEL Code: *K39, K30*

Introduction

The study of the sources of law in ancient China is a kind of key to discover the specifics, peculiarities and values of Chinese civilization. The Chinese legal system is one of the oldest in the world, and China is one of the oldest cradles of human civilization. (Drimba, 1984, p.2)

Western scholars on China, with only a few distinguished exceptions, have until recently shown but little interest in the study of Chinese law. We consider some reasons for this situation: the lack of information and legal training or interest among law specialists, some difficulties in style and vocabulary of the Chinese legal literature. These were the reasons that we have chosen as topic of research to analyze the peculiarities of the branches of law in ancient China.

The monumentality and relevance of the principles of Chinese law, little known in the study of European law, fascinates with its clarity, discipline, topicality and, last but not least, can represent a landmark in understanding the defining elements of the current legal system. (Bodde, 1981, p. 95)

No legal system in the world has come under the strong influence of two diametrically opposed philosophical doctrines like that of Ancient China. The ethical-

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political dogmas of Confucianism and the political-legal concepts of legalism became the defining factors of the progressive development of the law, its ideological foundations, its principles and institutions, as well as the enforcement mechanisms and the traditional legal understanding of the Chinese. (Ch'üT'ung-tsu, 1961, p. 2)

Traditional Chinese law is based on two types of sources, *li* and *fa*, the first has a moral origin and the other has a normative origin.

The ancient Chinese law can be classified into "formal" law and "informal law". "Formal law" is related to the authority of the emperor. Laws were devised by state representatives to regulate ancient Chinese society. In ancient China, the laws were characterized both by promoting the preservation of the system of different ranks among the nobles and by ensuring the control of the population.

Western scholars have studied Chinese criminal law in particular. Among the causes that caused students to encounter difficulties in the process of understanding Chinese legal principles, we mention the complexity of the Chinese administrative system. Research on informal law has also been hampered by difficulties in accessing raw information from original Chinese sources. This gave early Chinese and Western scholars the mistaken impression that there was no civil law system in imperial China.

1. Data and Methodology

The current research is a comparative work, as it describes, analyses and interprets information, in this case a set of norms belonging to the ancient Chinese legal system, to demonstrate that this is one of the oldest in the world.

In order to analyse the peculiarities of the branches of law in ancient China, during the writing process, various research methods were used, particularly theoretical, including:

- a. analysis, by dividing the topic into paragraphs, making references to Chinese legal doctrine and regulations;
- b. synthesis, by identifying the special features of special concepts;
- c. deduction, by making conclusions on the basis of the researched material and presenting the personal point of view on the subject under the current research;
- d. analogy, by using and comparing different Chinese ancient institutions, as well as the rules of different branches of law in different moments of legal system evolution, which makes it possible to identify similar and distinctive features;
- e. comparison, by comparing the peculiarities of civil law, family law, administrative law, criminal law in ancient China.

2. Civil Law

In early China customary law covered what in the West is considered private law or civil law. We are dealing with rules dealing with aspects of contract and property. In traditional Chinese law, things were reversed compared to Western systems where civil law preceded criminal law. As a result, the regulations of the criminal code aim at:

- either directly principles of civil law: issues related to debt and usury, land transactions, loans, pledge of property, sale of goods in the markets;
- either the indirect interpretation of a civil law as a basis for a private civil suit.

So-called "civil law" in ancient China had to do with property and interpersonal relationships between individuals, while criminal law aimed at enforcing public regulations and punishing illegal behavior that affected the community. The term "civil law" originates in ancient Rome rather than China.

The term *minlü* (民律) or *minfa* (民法) began to be used with the meaning of "civil law" in the late Qing Dynasty (清) and the Republic of China when the rulers tried to reform the traditional Chinese legal system with reference to Western law.

Given the relatively short history of this term, it is difficult to distinguish between *minlü* or *minfa* (civil law) and "criminal law" in ancient China. Zhang Zhaoyang believes that there was no civil law in Ancient China. The civil laws at that time were concerned only with the safeguarding of public rules and the power of the ruler. (Zhaoyang, 2014, p.14)

Recent research has shown that most of a magistrate's work involved resolving civil disputes, although the classic view was that Chinese judges were reluctant to intervene as arbitrators in any kind of civil dispute.

From this perspective, the reluctance of the judges to spend more time on these trials was determined by the fact that the Chinese civil administration was few in number while the workload of the magistrates was very high. Furthermore, early 21st-century scholars such as Philip Huang believed that the justice system in ancient China was not only fair and efficient, but also frequently used to settle disputes.

3.The Right of Ownership

The use of property in ancient China was classified into two categories, namely: above-ground rights (*tianpi*) and underground rights (*tiangu*). Thus, if they paid taxes and received official documents from the government, people who owned subsoil rights could claim ownership but had no rights to actively use the land. In return, owners of topsoil paid the owner of the subsoil a fixed rent (or a share of the income from what was produced on the land) not only for the right to cultivate and live on that land, but also for the right to independently sell or lease the land to another party. As a result, the party that owned the basement had no right to actively use the land or evict the landowner as long as another party held surface rights. (Kuchera, 2012, p.5)

Land, like other forms of property, was seen as owned collectively by the family and not by individuals within the family.

Another concept related to property rights in ancient China was *dianmai* (典賣/典), more commonly known as *huomai* (活賣/活卖), or conditional sales of property that allowed the seller (ie, his family) to buy back the land at the original price (without interest). The concept was that the land, having been owned by one family for generations, should remain in the same family. From the Sui Dynasty onwards, women could not own

property directly, and for land to remain in the same family, it had to pass between male heirs following the rule of primogeniture.

Land in ancient China began to be sold and bought, divided into smaller lots or united into larger ones. As a result, in the beginning, the people only had the right to use the land they received, the state retaining its most important role in economic life. Later, a tendency develops to transform possessions into private property. From the middle of the first century BC in some kingdoms commercial transactions began with the land. The Qin period was marked by the intensive development of private land ownership due to the redistribution of the land fund and its transfer into the hands of the new nobility.

The presence of a representative from both parties at the sale-purchase deed was mandatory. According to some sources, women or state slaves were also not entitled to these purchases. The deed of sale was written in red cinnabar on copper tablets. The explanation lies in the fact that the old tradition was to record such acts with the blood of animals brought as an offering. Land or labor rental contracts were also practiced.

In order to stimulate agriculture, it was stipulated the right of everyone to work the land left fallow or abandoned by the owner. After a certain period, they were registered in the cadastral register under the name of the person who worked for them. In ancient China, especially in the first century BC, a series of laws were issued that aimed to protect small peasants who owned land and those who ended up in slavery due to debt.

In addition to land, slaves were subject to property rights. During the Yin period, slaves were the property of the state (having a status similar to that of cattle), and although they were owned by private individuals, they were not yet subject to sale and purchase. During the Zhou period, both the exchange and purchase of slaves became possible. In the V-III centuries B.C. there were two categories of slaves: public and private, with private slavery playing an increasingly important role. During the Qin period, the slave trade was free and quite widespread.

The custom of pawning one's children for debts was present throughout China. They were turned into slaves if their parents did not redeem them. Emperor Udi issued a decree freeing all slaves who had not committed heinous acts that would warrant punishment and came from families of free people. Those who sold themselves because of hunger, those forced into slavery and women forced into concubinage were also freed. It was forbidden to mark the slaves and those who opposed their release were subject to a series of punishments provided by the legislation in force at that time.

4. The Law of Obligations

Different types of contracts were known to Chinese Starodawong law. One of these was a barter agreement, which is gradually giving way to the contract of sale. A written contract was required when conducting commercial transactions, and a fee was paid in addition. The state controlled the purchase and sale agreements. In the IV-III centuries B.C. a special clerk recorded this category of transactions. For example, the contract for the sale of slaves was drawn up through a written "red document".

The contract was made in writing and verbally in the presence of witnesses. When concluding a contract for the purchase and sale of land, the presence of community representatives was required. Their names were entered in the deed of sale. The contract related to things that were not withdrawn from circulation, both movable and immovable.

The acquisition of land, slaves, weapons and other goods by contract and even donation was quite widespread. In the late Zhou era, the loan contract was formalized, and usury developed. The loan contract was drawn up with a debt receipt, the object of the contract could be money, grain or other consumable goods. Clauses relating to the debt, the registration of guarantees, the postponement of payment, the depositing of a deposit, the issuing of written undertakings were stipulated.

The creditor's inability to pay resulted in his having to sell his land, his family members into slavery, and often himself. The development of the loan contract led to the emergence of "debtor's slavery". In China, there was a form of renters living off the earnings of lending operations. Moneylenders often became merchants or government officials. They got rich by collecting loan interest that ranged from 5 to 20 percent per year.

In the V-III centuries B.C. land lease contracts were often concluded.

Lease contracts in ancient China were of two types: leasing land (lease) and hiring labor (personal employment). During the Qin period, the owner received 50% of the harvest as rent. In addition, the tenant paid state taxes. The ruination of community peasants and artisans led to the need to sell their labor to third parties for a certain period of time for a fee. Thus, they had to perform various jobs in agriculture, trade, handicrafts, in the building and repair of various constructions. Remuneration for work was given in monetary form or in kind (cereals, vegetables, materials).

5. Family Law

In Ancient China, during the Zhou era, the family was patriarchal with an ancestor cult. The husband had power of control over his wife, children, slaves and servants. The woman was completely dependent on the power of her husband, she had no personal property, her rights regarding inheritance were limited. The marriage was concluded by the parents.

Family ties were strong. At the head of a large family was the oldest man to whom all were subordinate: husbands and concubines, sons and grandsons, wives and their children, slaves and servants. The head of the family acted as the ruler, owner of the property. The concept of "father" was marked by the hieroglyph "fu" which expresses "the hand that held the rod", a symbol of punishing family members for disobedience. The foundations of marriage and family law were based on Confucian ideas about the family as the primary social cell, operating on the basis of natural laws in the general system of social order.

The main purpose of marriage was the reproduction of the family which was achieved primarily through the birth of male children, "so that a person can properly serve the deceased ancestors and be able to continue his line" (as written in Li Tzu). Lack of offspring was seen by Confucians as a manifestation of filial disrespect, the most serious of all types of parental disrespect.

In order to conclude a marriage, it was necessary to meet a number of conditions. The marriage was performed by the families of the bride and groom or by the groom himself, being concluded with a private agreement. In the event of its violation, not only certain material sanctions were provided, but also the criminal punishment of elderly people in the family.

Initially, marriages between relatives were allowed, then later they were prohibited, in addition establishing the rule that the bride and groom should not bear the same surname, in order not to mix related families by mistake. The lack of surnames in Chinese society led to a certain exception to this strict rule - when the husband bought a "secondary wife" (Li Tzu, Book I). There was little chance of a woman leaving her husband or protesting against it.

Marriage age limits were fixed: for men from 16 to 30 years, for women from 14 to 20 years, the state ensuring that they were respected. For this purpose, according to Chou Li's testimony in "Book XI" there was a special official who was in charge of drawing up lists of men and women who had reached the age limit and who checked whether they respected their obligations to the ancestors.

One of the fundamental principles of the established social order was the following: "One husband - one wife". He was acting in a strange way, demanding only the wife's strict fidelity to her husband. The husband could have "secondary" wives and women (mistresses), especially in the case of the wife's infertility, their number being determined according to the man's social status.

Obstacles to marriage were certain periods of mourning for the husband and his parents, as well as certain crimes committed by one of those who intended to marry. Marriages between people of different social classes were also prohibited, involving criminal liability, especially in the case of marriages of free people with slaves. A free man who married a slave was punished like a thief.

In traditional Chinese law, unlike most other Eastern legal systems, divorce was encouraged or directly ordered under the threat of criminal punishment in case of "violation of civil rights". Reasons for divorce were considered sufficient if the husband claimed that his wife was disrespectful to her husband's older relatives, was barren, seriously ill. Other reasons could be those related to the damage caused by insults, beatings, injuries, etc., to the husband and his relatives. The request for divorce could be made not only by spouses but also by their family members.

In ancient China the woman did not have the possibility to leave her husband or to protest the divorce. According to the rules of the time, the wife had to stay with her husband in the "life of the earth and the grave" and could not marry a second time (Li Tzu, Book XI). But also, the husband, in the situation where he asked for a divorce without reason, was threatened with a punishment consisting of hard labor. He could not divorce if the wife had nowhere to go or if she was mourning her parents, etc. The husband's responsibility for his wife was also expressed by the fact that for all her crimes, except for a serious crime or

treason, he had to pay her bail. In ancient times, a father could sell his children, except for the eldest son, who enjoyed a number of advantages over the other children.

In wealthy homes, polygamy and harems with slave concubines were widespread. A specific form of marriage was that of a relationship in which a man was married to several female sisters at the same time. Thus, the eldest sister became the main wife. The rest of the women were declared young wives or concubines. The main wife held a privileged position. All the younger wives and concubines of her husband were to respect and obey her. At the same time, among ordinary people, very often men and women did not start a family.

After marriage, the woman lost contact with her former family. The husband's power over her and the children was very great. The wife had no property, could not make transactions, could not speak in court. The dowry and all family property were administered by the husband. The wife was to remain for the rest of her life in isolation, being in a special half of the house. She was considered a great sinner if she left her husband's house. In one treatise it is said that "if a woman did not die in her room, then the tablet of her spirit should not be placed next to the tablet of her husband". The head of the family was responsible for the mistakes of his family members. He had the right to punish his family members. He was allowed to beat younger sons, wives or grandsons to death. As a rule, the father was not penalized for these "educational" measures.

Sons and grandsons who tried without permission to break away from the extended family or seize part of the wealth were harshly punished. Kinship ties, position in the family hierarchy determined the extent of punishments for violating family or social rules. For example, the theft by the father from the son was not considered a violation, instead denouncing the elder was forbidden.

The husband who did not divorce an unfaithful wife was punished, and her murder together with the lover was considered normal.

6. Hereditary Right

In the early stages of the development of Chinese society, the younger brother of the deceased was considered the heir to the family's patrimony. During the Shan-Yin period, hereditary legal relations change. Gradually, it was established that the father's fortune would be inherited by his eldest son from his first wife. In the absence of sons, other relatives of her husband were called to inherit. This order was officially recognized during the Zhou period. In addition, in the absence of sons and relatives, the widow of the deceased was called to inherit the property.

The heirs were responsible for the debts of the deceased. Later, the right to inheritance was recognized for both men and women, but, among the descendants, the former had priority in the inheritance. In addition to the mass of property and in cases established by law, rank, title, position was subject to inheritance.

In the case of inheritance of property, sons received equal shares, unmarried daughters half of the sons' inheritance, and married daughters received nothing. The father had no right

to disinherit his sons, to increase the share of one son at the expense of another. Under Chinese law, donating land for religious or charitable purposes was permitted.

7. Administrative Law

Analyzing the documents of that period, we can conclude that the elements of administrative law were relatively well developed in ancient China. Their foundations were laid during the Zhou Dynasty. If we analyze the administrative structure, we find that the emperor occupied a privileged position, being above the law. Thus, the sovereign could both make the law as he saw fit, and ignore the laws of the time.

Sometimes the emperor could change a capital decision submitted by the central judicial bodies for approval, but he always did this with reference to the facts of the particular case and took care to explain in his sentence the reasons for the proposed change. Occasionally the emperor even accepted a protest from his officials if they felt that the change was not right and accepted that they had to act according to the existing law.

Although there are no collections of administrative laws that have survived to this day, about half of the Tang Code (71 articles) was recreated by the Japanese scholar Niida Noboru (1904-1966) and published in 1933 under the title "Collection surviving Tang Dynasty laws". This was accomplished by collecting and analyzing over a hundred Chinese sources from the Tang period containing fragments of laws.

A revised and expanded edition, including the author's reconstruction of the texts and a comparison of Chinese and Japanese law, was published in 1997. In 1989, a Chinese translation of the study was published. (Noboru, 1989, p.7)

Fragments of administrative legislation and Tang laws survive in other collections and in their original form among the Dunhuang manuscripts. The most significant one was discovered in 1999 in the Tianyi Ge Library (Tianyi Pavilion) in Ningbo city.

8. Criminal Law

Piesa centrală a dreptului penal a fost „codul pedepselor” emis de fiecare dinastie la începutul ei. Deși fragmente de legi au supraviețuit din Qin și Han, primul cod complet supraviețuitor a fost Codul Kaihuang dezvoltat în timpul dinastiei Sui și adoptat de dinastiile ulterioare, inclusiv de Tang în 653. Acest cod a oferit modelul pentru toate codurile penale tradiționale de mai târziu prin intermediul definirii celor cinci pedepse și zece urâciuni.

China's criminal law was based on the principles of orthodox Confucianism combined with the ideas of legalism. The main purpose of the law was determined by the repression for the commission of an illegal act. The rules of criminal law were vague.

A characteristic of the traditional Chinese criminal procedure is that we could characterize it as an "inquisitorial" type system in which the one who played the role of judge (usually the district magistrate) was the one who actually conducted the entire public investigation related to committing a crime.

The criminal was seen as a "vile man", his "evil" being determined by the fact that he was the bearer of criminal, criminal vices, which, depending on the nature of the crime, could destroy either the whole world or order, harmony in the social group in which the perpetrator belonged to.

According to the Confucian principle, when a person is guided by goodwill, he does not break the law. This opinion served as the basis for a specific doctrine regarding the form of guilt. The criminal will began to be taken into account when determining the punishment. A number of requirements for considering the will of the offender have been enshrined in law since 120 BC. This was why Chinese law began to classify crimes into premeditated and deliberate illegal acts that were committed with intent, without it, or by mistake. Thus, one type of punishment was imposed for the commission of intentional slander, another lighter type of punishment was imposed for a denunciation, which was eventually confirmed. The type of punishment for causing bodily harm was determined on the basis of whether it was inflicted with "vile intent" or during a fight.

The concept of crime was associated with the manifestation of a person's criminal will. The measure of the guilt and the severity of the punishment were determined by the spiritual state of the guilty.

Chinese jurists distinguished the mastermind of the crime and his accomplices. In criminal law, the mitigating and aggravating circumstances defined by the intellectuals who studied Confucianism, called for showing respect for the elderly, compassion for children and pregnant women.

In ancient China, the following types of crimes were identified: intentional and deliberate, committed intentionally and unintentionally, committed by mistake. Concepts such as stages of crime, murder, attempted crime, complicity in crime, the organizer or person who planned the crime, group crime, mitigating and aggravating circumstances were known.

From the perspective of Confucian morality, the classification of crimes includes the "10 evils":

1. The conspiracy of rebellion against the emperor
2. Serious disobedience
3. Conspiracy, betrayal
4. Disobedience, disobedience
5. Injustice, depravity.
6. Expressing great disrespect.
7. Expression of filial disrespect
8. The disagreement
9. Injustice
10. Incestuous sexual relations

The following types of crimes were classified:

a) State crimes: treason against the emperor, rebellion, conspiracy against the emperor, rebellion, disobedience to the emperor's orders, speaking evil against him, possession of prohibited literature, etc.;

- Crimes against property: robbery, destruction of someone else's property, theft of property, animals, documents;
 - Offenses against the person: murder (intentional, reckless, in combat), bodily harm (injury), slander, assault, abuse, etc.;
 - against family members: adultery, rape, seduction of a woman by an official, disrespect towards parents, husband, older relatives.
 - Offenses against morality: disrespecting the father or the eldest in the family;
- b) Offenses against order / leadership: bribery, receiving a gift from subordinates, absenteeism, revealing state secrets, disobeying the head of state, disobeying the boss, disobeying the boss's order, desertion, cowardice, disrespect for the authorities, failure to show up until the deadline at the meeting place etc. (Faizullina, 2013, p.10)

The prescribed sanctions were:

- Death penalty;
- Transformation into a slave;
- Corporal punishment;
- Fine.

According to the Tang Dynasty Code, the punishments could be:

- hits with sticks (from 10 to 100);
- the death penalty (beheading, strangulation, dismemberment of a corpse);
- hard work (from 1 to 3 years);
- distance from 2000 to 3000 *li* (1-500 km).

Conclusions

As we underlined in the introduction of this research, the law specialists in the Western countries have not approached the benchmarking of ancient Chinese law branches. So, this article identifies the peculiarities of civil law, family law, administrative law, criminal law as components of the Chinese legal system that helps us to understand the beginning of law development in this region of Asia.

It should be noted that, contrary to what one might think, the Chinese have written their own laws since ancient times, a peculiarity which compares them, for the historical and characteristic period, with the Romans. (Gernet, 1985, p.102)

Analyzing the evolution of the legal system in ancient China, we note that when considering the establishment of a new law, care was taken to evaluate its relationship with the existing law. Laws were made through government officials, then brought to the attention of the emperor for him to authorize and enforce on his subjects. (Shouyi, 1997, p.74)

Equality before the law has never been officially accepted as a legal principle and legal practice. The traditional Chinese legal system, as an instrument of the emperor, never met powerful counterparts and therefore never tolerated the existence of foreign powers

and legal rules other than those of the sovereign. (Semigin, 1999, p.63) In ancient China the people never attributed their laws to a divine lawgiver.

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FOREIGN ECONOMIC COOPERATION AND DEVELOPMENT OF THE REPUBLIC OF KOREA THROUGH THE CONCLUSION OF FREE TRADE AGREEMENTS

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Abstract: *The article discusses changes in the foreign economic policy of the Republic of Korea in connection with the deterioration of international trade at the beginning of the XXI century. The direct motive for changing the foreign economic policy of the Republic of Korea is the decline in the role of the WTO as a multilateral trading partner. On the other hand, FTA, based on economic cooperation between the two countries, is becoming a new model for economic development and cooperation in the XXI century. Bilateral negotiations are more likely to end than multilateral ones, because they are actively conducted in accordance with the interests of two countries. Therefore, free trade agreements (FTAs) are becoming the main direction of the economic policy of the Korea's government to adapt foreign economic policy and overcome the negative trend of global economic development. An FTA has various economic effects, such as the development of trade between two countries, improving the efficiency of resource allocation, reviving investment between two countries and stimulating economic growth. In accordance with this situation, the Republic of Korea justifies the relevance of trade and economic cooperation between two countries through the conclusion of an FTA as a means of implementing an active foreign economic policy. The Republic of Korea has become an opportunity to introduce an advanced economic structure through the signing of free trade agreements with advanced countries. On the other hand, it served as an opportunity to strengthen economic cooperation through the signing of free trade agreements with developing countries. For this reason, the experience of the foreign economic policy of the Republic of Korea can serve as a good example for the economic development of developing countries.*

Keywords: *bilateral cooperation, extension of economic cooperation, stable large market, increase in trade, economic development.*

JEL Code: E60, F02, F13

Introduction

Since the beginning of the XXI century, regional trade agreements (RTAs) have begun to become a global trend, and bilateral and multilateral trade agreements on goods and services have begun to be actively concluded. The reason for sharp increase in RTAs

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around the world lies in the fact that the negotiations on the DDA (Doha Development Agenda), which have begun after the creation of the WTO, have not been conducted properly. When the negotiations were launched in 2001, it was planned to bring the negotiations to conclusion before 2005 under condition of a single undertaking. However, due to conflicts between importing and exporting countries over agricultural products and between developed and developing countries over the opening of industrial markets, the negotiations are still ongoing.

Due to the failure of the DDA negotiations, the WTO system, which pursues a multilateral free trade agreement, has gradually begun to reveal its limits. In addition, as trade tensions increase due to the war for economic supremacy between the USA and China, the WTO's role in intermediary and discussion weakens. Moreover, the emergence of new protectionism combined with political problems accelerates the rapid economic blockade of the global economy. As a result, the role of the WTO, based on free trade, shows its limits, and globalization faces serious crisis (Pak, 2004).

However, the purpose of the FTA policy is to ensure a stable large market and actively respond to the growing uncertainty in the export market due to the spread of new protectionisms. It is also aimed at extension of economic cooperation and facilitation of economic growth between two countries. In addition, the fundamental basis of the Korean government's political decision to promote FTAs is the restructuring of industry, the development of the trading system, the stable extension of export markets and the extension of friendly economic cooperation.

In this political direction, Chile was chosen as the first FTA target country for Korea. This was due to the fact that the Republic of Korea, which had no FTA experience, was able to obtain FTA experience, while minimizing the negative impact on Korea's weak agriculture. The Korean government considered that the agricultural products and wine industry of Chile, which have been characterized by opposite seasons, would complement the weak agricultural sector of Korea.

The Republic of Korea and Chile had been negotiating since December 1999, and an agreement was reached on the degree of opening of agricultural products and the agricultural sector, and a full agreement was reached in October 2002. Eventually, the free trade agreement between the two countries came into force on April 1, 2004.

As of April 2022, 17 free trade agreements with 50 countries entered into force in the Republic of Korea. The main operating countries are Chile, Singapore, EFTA, ASEAN, India, the EU, Peru, the USA, Turkey, Australia, Canada, China, New Zealand, Vietnam, Colombia, Central America, Great Britain, RCEP and Ecuador. The countries that have signed and concluded FTAs with the Republic of Korea are Indonesia, Israel, Cambodia and the Philippines. Countries negotiating with the Republic of Korea on FTAs: China-Japan, Russia and MERCOSUR, Uzbekistan; the Republic of Korea needs to resume FTA negotiations with the EAEU countries (FTA Status of Korea, 2022).

1. Literature review

The purpose of the FTA policy is to ensure a stable market and actively respond to the growth of uncertainty in the external economic environment. It is also aimed at extension of economic cooperation and facilitation of economic growth between two countries through free trade agreements. FTAs have various economic effects, such as the development of trade between two countries, improving the efficiency of resource allocation, stimulating investment between two countries and promoting economic growth. The fundamental basis of the Korean government's political decision to promote FTAs is the restructuring of industry and the development of the trading system, the stable extension of the export market and the extension of friendly economic cooperation.

This article is concerned with changes and development of the foreign economic policy of the Republic of Korea within the framework of functioning in free trade zones. At present, new protectionism is emerging all over the world. Under these circumstances, the importance of bilateral trade and economic cooperation increases in comparison with multilateral. In addition, it is necessary to take into account the state of uncertainty in international trade and political and economic sanctions against a number of countries.

Research on the FTA policy is actively conducted among Korean scientists, and the following scientists are referenced. Ahn (2011) explains the general direction of the Korean policy regarding FTAs. Pak (2004) provided the main policy directions of the Korean government in the future in the paper on the main directions of the Korean policy regarding FTAs. Cho (2019) presented a research paper on the Korean government's FTA policy over 15 years (2004-2019). According to his research paper, the advantages of the Korean government's FTA policy and the issues that need to be guaranteed are noted. His findings, the Korean government's policy in the field of FTAs is becoming a practical alternative in overcoming the uncertain foreign economic situation and in long-term economic development.

Pak (2020) and Bae (2013) represent practical trade statistics on the Korean government's free trade policy and conduct a comparative analysis of profits and losses in the Korean economy.

In particular, Jeong (2022) reports that the conclusion of the free trade agreement between Korea and the USA has led to significant reforms in the Korean economy and society. A study by Choi (2020) proves that the real beneficiaries of the FTA policy are the Korean people. In other words, through the FTA policy, Koreans are given the opportunity to choose cheaper and better products. In his dissertation, Yung (2020) presents the future direction of the Korean FTA policy. It is assumed that the future FTA policy should focus on economic cooperation with contracting countries, and not on trade.

With regard to general statistics, data from the National Statistical Office of Korea were given and expert opinions were cited. According to the general opinion of Korean experts, in the current situation, when the WTO function is weakening, the FTA becomes a practical alternative for economic development and promotion of international cooperation of the Republic of Korea. Based on these opinions, it can be said that the promotion of the

Korean government's policy regarding FTAs is a good model for the formation of a successful foreign economic policy and international economic cooperation.

2. Methodology

2.1. Prerequisites and economic effect of the conclusion of FTAs

a) The main policy of the government of the Republic of Korea regarding FTAs

After the conclusion of the FTA with Chile in April 2004, the Korea's government developed a step-by-step medium- and long-term roadmap for the future promotion of FTAs. Japan and Singapore were chosen as short-term target countries and ASEAN, Mexico and EFTA were chosen as the next step. The USA, China and the EU were chosen as target regions for medium- and long-term promotion of FTAs. The basic principle of the Korean government's free trade agreement is to explore whether the main export products of the target country, including Korean agricultural products, compete in the world market. That is, by means of FTAs, the focus was on minimizing sudden changes and damage to some vulnerable industries, such as agriculture.

In addition, the USA, China and the EU were chosen as medium- and long-term target countries that focused on maximizing economic profits by extension of the market through free trade agreements. The Korean government's policy mainly promoted the conclusion of FTAs with small countries or countries that would not have a significant impact on the Korean agricultural sector in the short term. In other words, the method of minimizing national costs was used.

However, in the FTA policy, it is more important to take into account the long-term aspect of economic development than the short-term economic benefit from the point of view of establishing foreign economic policy. For this reason, Korean government sought to gradually open up the domestic market, improve the domestic economic structure, ensure the competitiveness of domestic industry and improve the quality of life of consumers through the conclusion of FTAs. The main directions of the policy of the government of the Republic of Korea regarding to FTAs are to achieve economic development and strengthen economic cooperation through trade liberalization, improvement of the economic structure and development of the economic system (Ahn, 2011).

b) The main steps for the creation and implementation of the FTA policy by the Korean government

The issues that the Korean government has analyzed in advance to facilitate the conclusion of FTAs can be divided into two main categories. The first is the choice of partner countries, and the second is the content and scope of negotiations, including customs duties and rules of origin. The criteria for choosing FTA partner countries are classified into economic grounds, political and diplomatic grounds and strategic grounds (Table 1). Economic grounds can be analyzed by dividing them into economic benefits and economic costs. In terms of economic benefits, the size of the partner country's market,

which affects export growth through free trade agreements, and complementary relations with the industrial structure of the Republic of Korea are taken into account. In addition, the possibilities of direct investment in FTA countries and the provision of production bases abroad through technology transfer are considered. Free trade agreements, driven by political and diplomatic grounds, are aimed at ensuring Korea's political and military security and energy resources. An example is the conclusion of the FTAs with Russia and Israel.

Table 1. Criteria for choosing partner country under a Free Trade Agreement of the Republic of Korea

Economic benefit	<ul style="list-style-type: none"> - potential size of the export market - industrial structure complementary and competitive with the partner country - potential for future foreign direct investment in the partner country - lack of trade barriers for the partner country (distance, trade tensions, the presence of tariff and non-tariff barriers) - possibility of building a potential production base by transferring technology to the partner country (the technological level of the partner country, does it have the opportunity to master the technology)
Political and diplomatic grounds	<ul style="list-style-type: none"> - regional security and diplomatic necessity - resources (oil, natural gas) consistently provided - possibility of military and technical cooperation
Strategic grounds	<ul style="list-style-type: none"> - an FTA concluded with the purpose of strategic use of a third country to negotiate free trade with other countries to advantage
Economic bases for expenses	<ul style="list-style-type: none"> - costs due to restructuring of industry (an increase in the probability of potential costs in other industries due to losses in the agricultural sector) - social tensions due to the labor transfer between industries - probability of trade conflicts with other countries because of the country with which an FTA is concluded
Other	<ul style="list-style-type: none"> - is the country with which an FTA is signed interested - is there a possibility of social consensus by improving the relevant domestic laws in connection with the conclusion of the FTA

Source: Cho (2019), pp. 21-22

As the conclusion of FTAs spreads around the world, the content of free trade negotiations changes significantly in accordance with the national interests of every country. Countries around the world seek not only the abolition of tariffs through the conclusion of FTAs, but also practical assistance to the economic development of two countries. For this reason, a free trade agreement includes various sections, such as: investment agreements, service agreements, financial services agreements, intellectual property rights agreements, agreements on rules of origin, dispute settlement agreements etc. In recent years, labor standards and environmental protection have become important issues, mainly in developed countries. For this reason, the Korean government also considers labor standards and environmental protection issues as the main issues when concluding a free trade agreement. The main components of the free trade agreement of the Republic of Korea are presented in Table 2.

Table 2 – Main components of the Free Trade Agreement of the Republic of Korea

General FTA	FTA with developed countries	FTA with developing countries
Production, agriculture, tariff liberalization, transit, sanitary and phytosanitary agreement, technical barriers to trade, anti-dumping measures, compensatory duty, GATS, TRIPS, intellectual property rights	Export tax, public procurement, competition policy, investment, capital movement, labor market regulation, public administration, environment	Economic cooperation and support at the state level, cultural cooperation, energy, joint research

Source: Cho (2019), p. 24

c) Development and direction of the staged promotion of FTAs by the government of the Republic of Korea

Since the entry into force of the Free Trade Agreement between the Republic of Korea and Chile in 2004, the Korean Government has continuously expanded the FTA network, and this process has been carried out in three stages (Figure 1).

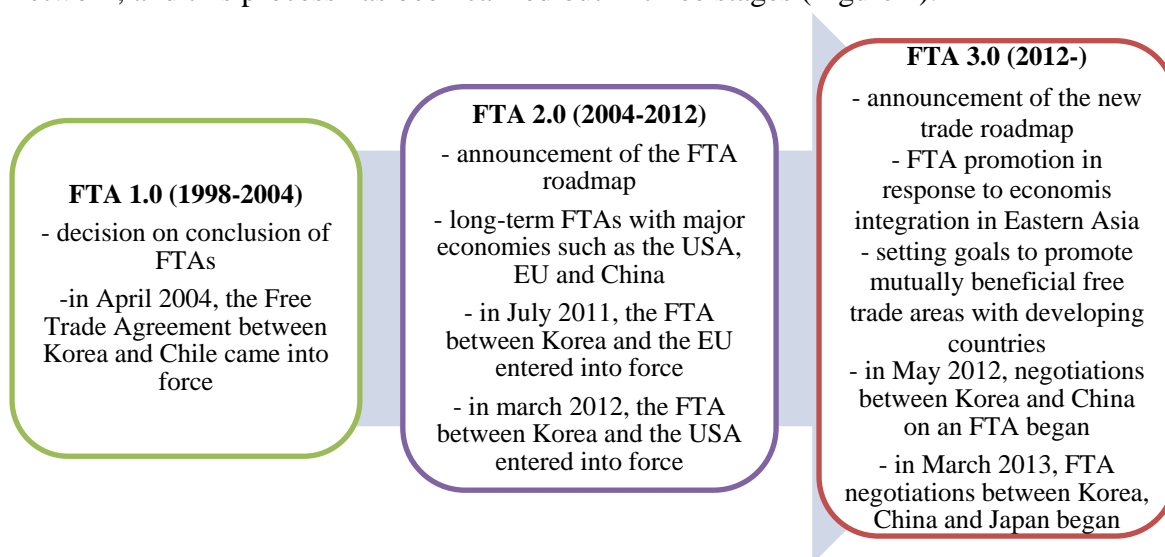


Figure 1. The process of promotion and development of FTAs by the government of the Republic of Korea

Source: Bae (2013), pp.10-11

Stage 1 (FTA 1.0): The decision to promote FTAs and the entry into force of the Free Trade Agreement between the Republic of Korea and Chile (1998-2004).

The Korean government established an export-oriented policy and focused on expanding exports within the WTO system. However, from the mid-1990s, countries around the world actively facilitated trade extension based on the spread of FTAs. It was only in the early 2000s that the Korean government faced the reality that it was falling behind on the changes in the international trading environment. As a result, the Republic of Korea faced

increased trade tensions and a reduction in export markets. Accordingly, the Korean government decided to conclude FTAs as the main direction of foreign economic policy.

In the course of overcoming the 1997 currency crisis, the main directions of foreign economic policy were to ensure export markets and attract foreign investment through FTAs. One more goal of FTAs was strengthening of the Korea's economy by improving the economic structure and accelerating restructuring of industry.

The reason why the Korea's government chose Chile as the first country to cooperate under a free trade agreement is that Chile had an additional trade structure; it means Korea exports industrial products to Chile and imports agricultural products and raw materials from Chile. In addition, it was considered that in many ways Chile would not have much impact on South Korean industry.

In addition, it was believed that the damage to agriculture in Korea is limited, since the distance between the two countries is large, the seasons are opposite, and the timing of growing crops is different. Moreover, an important role was played by the fact that the Korean government could learn know-how from Chile, which already had solid experience in concluding FTAs.

Stage 2 (FTA 2.0): Creation of a roadmap for the future promotion of FTAs and the entry into force of Free Trade Agreements between the Republic of Korea and the EU, as well as the USA (2004-2012).

After the conclusion of the Free Trade Agreement between the Republic of Korea and Chile, the Korean government prepared an FTA roadmap entitled "Free Trade Negotiation Partners and Promotion Strategies" in order to significantly accelerate the promotion of FTAs.

The roadmap aimed at promotion of FTAs with countries of great economic power, such as the USA, EU and China in the medium and long term. However, in the short term, the Korea's government facilitated the conclusion of FTAs with Singapore, Mexico, Canada and EFTA, where negotiations could begin. In other words, the strategy of the Korea's government was to first conclude FTAs with countries adjacent to large economic bloc, and then directly conclude agreements with major economic powers.

In addition, in order to maximize the economic effect, the goal was not only to abolish tariffs on goods, but also to promote a comprehensive FTA that includes services, investments and intellectual property rights. The purpose of creating these exceptional conditions for negotiations was to overcome the disadvantaged status of Korea as a latecomer to FTAs. Moreover, the Korean government tried to improve the trade environment in a short time by promoting free trade agreements simultaneously, rather than sequentially.

In accordance with this strategy, the Free Trade Agreement between the Republic of Korea and the EU entered into force in July 2011, and the Free Trade Agreement between the Republic of Korea and the USA also entered into force in March 2012. Thanks to this, Korea turned from a border country of the FTA into a country that immediately attracted the attention of the whole world.

Stage 3 (FTA 3.0): Preparation of a new trade roadmap and the stage of response to economic integration in East Asia (2012-).

After 2012, the promotion of mega free trade agreements began in earnest, such as the promotion of Korea-China-Japan, Japan-EU and USA-EU free trade agreements. As the center of the world economy moved to Asia, discussions about economic integration within Asia began to be actively conducted. The global trading environment was changing rapidly, as described above, the Korean government realized the need for a new trade roadmap.

The Korean government presented a direction to promote a mutually beneficial FTA for economic development and extension of cooperation in emerging economies at the time when economic integration in East Asia was actively discussed. That means Korea’s government planned to increase opportunities for extension of foreign markets and investment through the economic development of developing ASEAN countries.

At that time, the FTA between the Republic of Korea and Turkey and the FTA between the Republic of Korea and Australia came into force, and at the same time a Free Trade Agreement with Indonesia and Vietnam was promoted among the ASEAN countries (Kim, 2019). Close economic relations within the framework of FTAs provided an opportunity to make a great contribution to the development of the Korean economy and to the provision of natural resources. Looking at the policy of the Republic of Korea regarding FTAs, it can be seen that there is a balance between developed and developing countries and regions (Table 3).

Table 3. Classification of South Korean FTA Partner Countries

Developed countries		Developing countries	
Eastern Asia	Singapore	Eastern Asia	ASEAN, China, Vietnam
Europe	EFTA, the EU	Europe	Turkey
North America	The USA, Canada	North America	Chile, Peru, Columbia
Oceania	Australia, New Zealand	Oceania	India

Source: Cho (2019), p. 22

2.2 Achievements and consequences of FTAs in accordance with the Foreign Economic Policy of the Republic of Korea

a) Trade extension effect

When the Free Trade Agreement between Korea and Chile came into force in 2004, the share of imports and exports with FTA countries was only 0.3% and 0.9%. However, as free trade agreements were concluded with ASEAN, the EU, USA and China, the share of trade increased rapidly. In particular, since the entry into force in 2015 of the FTA with China, the share of FTA partners in the total volume of trade has exceeded more than 70% (Figure 2).

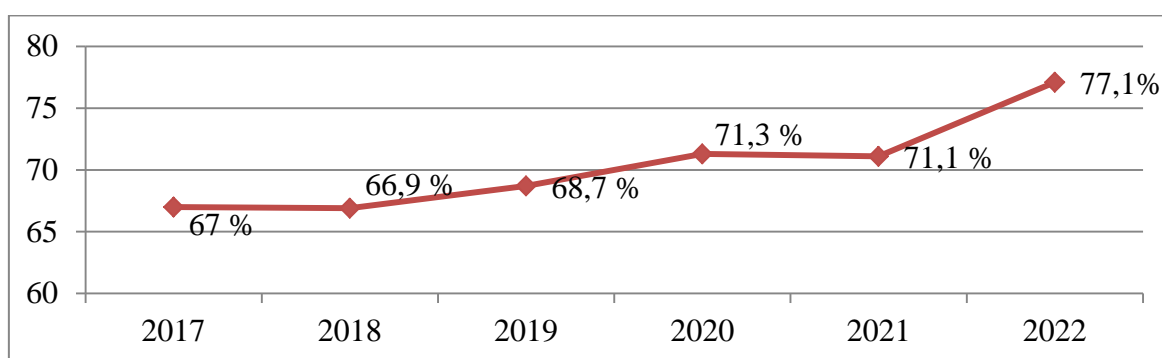


Figure 2. The share of the Republic of Korea in FTA trade (%)

Source: Korea Customs Service (2022), available at:

https://unipass.customs.go.kr/ets/index.do?menuId=ETS_MNU_00000173

In particular, if we look at the trade situation in 2020, the Republic of Korea recorded a positive balance of \$60.2 billion in trade with countries that signed FTAs, but recorded a deficit of \$15 billion in trade with non-FTA countries (Table 4).

Exports with FTA countries decreased by 3.9% compared to the previous year, while imports decreased by 1.3%, indicating a decrease in the trade surplus compared to 2019. Although the trade balance with non-FTA countries had a deficit of \$15 billion, the overall trade balance recorded a surplus of \$45.2 billion. It can be seen that FTA trade plays a key role in the development of the South Korean economy under conditions of uncertainty in the global economy due to the repeated COVID-19 outbreak (Table 4).

b) Diversification of products effect

For example, looking at (Table 5), it means that the number of countries to which Korean cars were exported from 2002 increased from 15.3 to 22.1 countries in 2020. And if in 2003 wines from 10 countries were imported to Korea, then in 2020 various types of wines were imported from 15.2 countries.

Table 4. Trade status with countries applying a Free Trade Agreement in 2019 and 2020 (USD million)

Division		Volume of trade			
		Trade	Export	Import	Trade Balance
FTA countries	2019	725,893	397,703	327,190	71,513
	2020	705,959 (-2,7%)	383,118 (-3,9%)	322,190 (-1,3%)	60,277
Non-FTA countries	2019	319,683	143,530	176,153	-32,623
	2020	274,378 (-14,2%)	129,671 (-9,7%)	144,708 (17,9%)	-15,037
Total	2019	1,045,576	542,233	503,343	38,890
	2020	980,337 (-6,2%)	512,789 (-5,4%)	467,549 (-7,1%)	45,240

Source: Kim (2021), pp. 6-7

Thus, with the diversification of imported products, a positive effect of increasing the availability of various products from the point of view of consumers can be obtained. In addition, if similar products are imported from many countries, the effect of price reduction can be expected due to competition.

In case of export, since the market of the partner country under the agreement opens after the entry into force of the FTA, it is possible to obtain the effect of improving the structure of trade by expanding the export market. At the same time, since the same product is exported to more diverse countries, it is possible to minimize the damage caused by protectionism or unilateral trade policy of a trading partner by reducing the dependence of exports on a particular country.

Table 5. Average number of trading partner countries of the Republic of Korea per unit of products (number of states)

Year	Export	Import	Year	Export	Import
2002	15.3	9.9	2011	19.2	12.4
2003	15.7	10	2012	19.3	12.6
2004	16.3	10.1	2013	20.1	13
2005	16.4	10.3	2014	20.7	13.3
2006	16.7	10.7	2015	20.6	13.7
2007	16.9	10.4	2016	20.6	13.9
2008	17.7	11.2	2017	20.8	14
2009	18.1	11.5	2018	21	14.4
2010	18.6	11.9	2020	22.1	15.2

Note: Calculation of the average number of trading partner countries of the Republic of Korea per unit of products based on 10 units.

Source: Kim (2021), p. 11

Summing up the effect of the FTA trade, it can be seen that the conclusion of FTAs has a positive impact on the total exports of the Republic of Korea and plays an important role in increasing trade. In addition, it can be noted that the effect of increasing trade leads to the phenomenon of diversification of trade items in the Korean economy. As a result, thanks to the conclusion of the FTA, Korea not only expanded its access to foreign markets, but also increased the scope of trade.

c) The effect of foreign direct investment of the Republic of Korea

On the one hand, the conclusion of FTAs helps to actively attract foreign direct investment to Korea, and on the other hand, it helps Korean companies expand foreign markets and make possible production bases abroad through foreign direct investment. Foreign companies that want to export to countries that have signed free trade agreements

with the Republic of Korea will have the opportunity to actively invest in Korea to enjoy duty-free benefits.

In particular, in the 2000s, the Korean government continued to encourage foreign direct investment in order to ensure constant energy and natural resources. These concrete efforts of the Korean government have led to significant results thanks to the conclusion of a free trade agreement. The dynamics of Korea's foreign investments in FTA partners shows that foreign direct investment (hereinafter referred to as FDI) of the Republic of Korea increased 6.3 times from 54 billion US dollars in 2006 to 339 billion US dollars in 2017. And in 2020, they reached 514 billion US dollars (Figure 3).

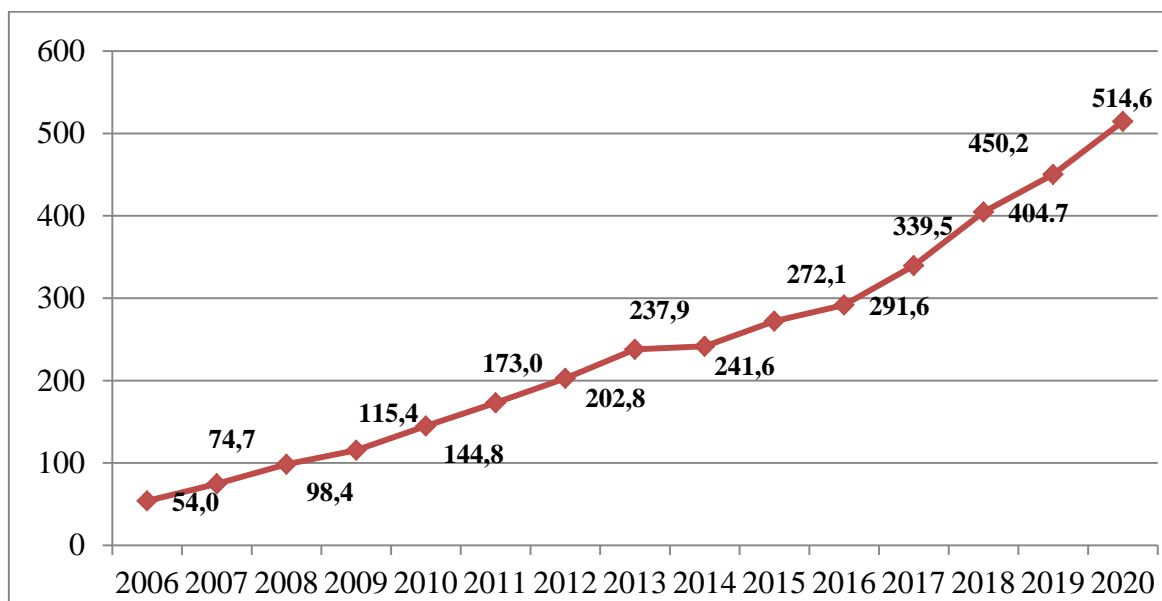


Figure 3. Dynamics of foreign investments of the Republic of Korea in FTA partners (USD billion)

Source: *Economic Performance of the Republic of Korea (2021)*, available at: https://www.index.go.kr/potal/main/EachDtlPageDetail.do?idx_cd=1065

d) Achievements of the Republic of Korea in the field of economic and social reforms thanks to the conclusion of FTAs (evolution to an advanced economic structure)

The main goal and direction of the Korean government's policy regarding FTAs is to overcome uncertain and negative foreign economic phenomena and create a new market. It is also aimed at transformation into an advanced economic structure by improving economic systems through market opening and trade liberalization. In particular, the FTA between the Republic of Korea and the USA, which entered into force in March 2012, contains many provisions that need to be improved in detail to promote the Korean economic structure. That is, the Free Trade Agreement between the Republic of Korea and the USA has become an opportunity to have a significant impact on the overall economic structure of Korea. After Korea concluded free trade agreements with other countries, the content stipulated in the Free Trade Agreement between Korea and the USA became the

basis. About 25 laws have been changed in connection with the free trade agreement between Korea and the USA.

Most importantly, the conclusion of the FTA with the USA was an important opportunity for Korea to continue negotiations on free trade agreements with other partners, such as the EU and Turkey. In addition, the conclusion of the Free Trade Agreement between Korea and the USA led to openness and liberalization in response to the trend of globalization throughout Korean society and served as an opportunity for the development of an advanced economic structure. Most importantly, after the conclusion of the free trade negotiations between Korea and the USA, many countries of the world began to use the FTA agreement between Korea and the USA as a textbook for negotiations. Thus, it cannot be denied that the conclusion of the FTA contributed to the achievement of many changes not only in the economic development of Korea, but also in society as a whole (Choi, 2020).

e) The effect of restructuring of industry (economic restructuring in developed countries)

The biggest problem in concluding an FTA is the restructuring of vulnerable industries that have lost competitiveness compared to the countries with which the agreement was signed. The agricultural sector of the Republic of Korea has been a negative factor in the promotion of free trade agreements due to its weak international competitiveness. The opening of the agricultural market in Korea directly entails the restructuring of the agricultural sector, such as the transformation of crop cultivation, the relocation of agricultural labor and the change in the use of land resources.

Accordingly, the Korean government has passed and is applying the “Special Law on Support of Agriculture within the scope of FTAs” in order to effectively compensate for the damage caused to the agricultural sector as a result of the entry into force of FTAs. So that the agricultural sector does not become an obstacle to liberalization, the restructuring of the agricultural sector should be carried out smoothly in the long term under public consultations (Yoon, 2020).

The agricultural sector in Korea is also progressively expanding due to the emergence of corporate agriculture and the transition to the cultivation of special crops as a result of restructuring. In other words, the transition to an advanced agricultural structure is gradually taking place. There is a transition from small farms to corporate farms.

After the FTA came into force in 2004, the industrial structure of the Republic of Korea was reorganized into a structure of a developed economy focused on the service industry. The value-added ratio by industry in the Korean economy is 60% in the service industry, 30% in the manufacturing industry, 5% in the construction industry and other industries. Compared with other industries, the share of the service industry has been steadily growing since 2015 (Table 6).

Table 6. Real value-added share of the main industries in the Republic of Korea (%)

Industry	2000	2010	2015	2018	2019	2020
Agriculture, Forestry and Fishing	2.18	2.00	1.99	1.93	1.93	1.9
Mining Industry	0.14	0.15	0.14	0.12	0.11	0.12
Manufacturing Industry	44.4	49.0	29.01	29.07	28.83	27.2
Electricity, Gas, Water Industry	2.75	2.64	2.72	2.59	2.65	2.55
Construction Industry	7.2	5.9	5.85	5.52	5.27	5.55
Service Industry	42.8	40.3	60.30	60.76	61.23	62.3

Source: Kim (2021), pp. 25-27

2.3 Proposals on the conclusion of Free Trade Agreements by the Republic of Korea

In order to strengthen the system of global economic cooperation through FTAs, it is necessary to promote the formation of a national consensus

The Republic of Korea strengthened the creation of a global economic network through the FTA policy, expanded the number of imported and exported goods and increased the trade balance. In addition, the foreign market and corporate operating profit improved due to the growth of foreign direct investment. The global financial crisis that occurred in 2008 and the external economic uncertainty caused by the growth of new protectionism in the countries of the world were overcome thanks to the conclusion of FTAs. In particular, free trade agreements have played a key role in expanding the trade of the Republic of Korea.

Given that Korea's domestic market is small and natural resources are limited, an export-oriented growth strategy is still relevant for the development of the Korean economy. As a result, the opening of the country's domestic market is an inevitable economic situation of the Republic of Korea. However, the assessment of the FTA policy accompanying the opening of the country's domestic market may vary depending on the point of view. Industries and social classes affected by the FTA policy negatively assess the opening of the country's domestic market. In particular, agriculture and animal breeding, as well as the service sector are still among the vulnerable sectors of Korea. For example, in Korea, the issue of opening a rice market is a very controversial topic in political terms. As a result, social conflicts are escalating. For this reason, the issue of the openness of the rice market is inevitable for the Korean government, since when concluding a free trade agreement, they enter into confrontational relations with another country.

The openness of the agricultural sector and the restructuring of the country's domestic industry are still politically sensitive issues in promoting FTAs. No matter how good a policy is, if a national consensus is not formed, it is difficult to implement and difficult to achieve an effect. For this reason, it is extremely important to form a national consensus on the promotion of the future FTA policies. In order to develop the Korean economic system and increase the competitiveness of companies through free trade

agreements, it is important that the Korean government makes constant efforts to form a national consensus.

b) Diversification of export items and strengthening the international competitiveness of small and medium businesses

Korea’s economy is still heavily dependent on a small number of major export products, such as semiconductors, automobiles and household appliances. Korea’s export products were not diversified, but concentrated on several products. If the dependence on several major export items is high, it will be strongly affected by changes in external demand, which will act as a risk factor for long-term economic development. This economic structure of Korea can be explained by the structure of export products aimed at large enterprises and the lack of competitiveness of small and medium businesses abroad.

Therefore, as liberalization increases, the gap between large enterprises and small and medium businesses grows; this is a negative factor for the balanced development of the Korean economy. For this reason, it is necessary to diversify export items and at the same time achieve balanced growth by increasing the international competitiveness of small and medium businesses. That is, product diversification and balanced growth should be achieved by small and medium businesses’ simultaneous entry to foreign markets through free trade agreements. In addition, when small and medium businesses expand abroad through free trade agreements, they play an important role in creating high-quality jobs within the country. For that purpose, to discover new FTA participants, but it is equally important to effectively use existing FTAs.

c) Control over the actual improvement of the quality of life of consumers

A typical situation when free trade agreements affect the welfare of consumers is a decrease in the prices of imported goods and an increase in their diversity. Since the entry into force of the FTA in 2004, the number of imported goods from other countries has been constantly increasing. Accordingly, thanks to the conclusion of the FTA, the quality of life of Korean consumers has increased (Figure 4).

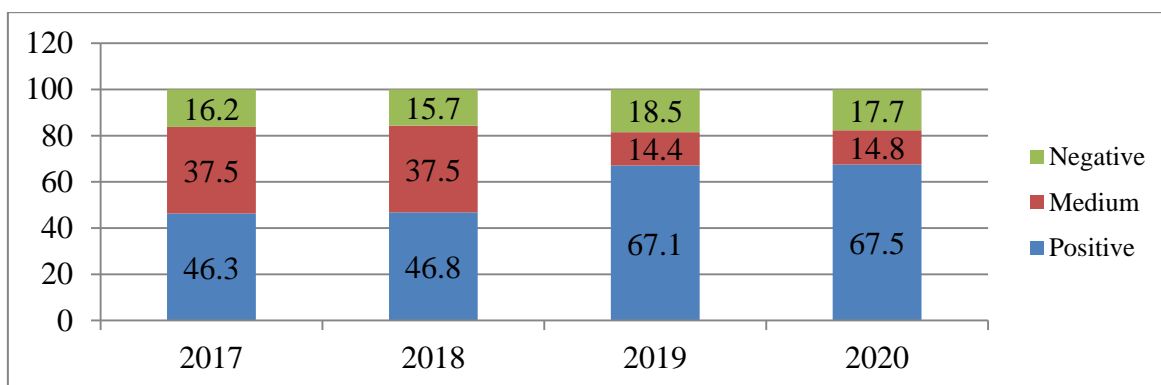


Figure 4. Research on the direct impact of the entry into force of the FTA on consumers by year (%)

Source: Choi (2020), pp. 10-11

In other words, the range of consumer choice of imported goods has expanded, and there has been a positive phenomenon of imported consumer goods cheapening (Figure 5, 6).

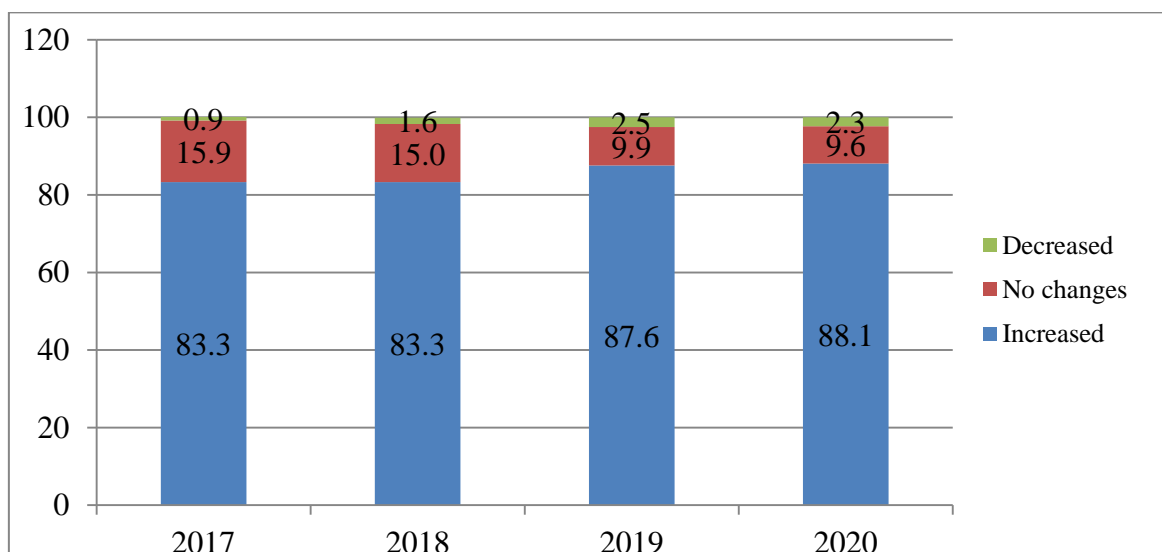


Figure 5. Changes in consumer choice by year due to the entry into force of the FTA (%)

Source: Choi (2020), pp. 22-23

So that preferential tariffs as a result of the entry into force of the FTA lead to a significant decrease in prices for consumers, the Korean government should systematically and continuously control importers and distributors.

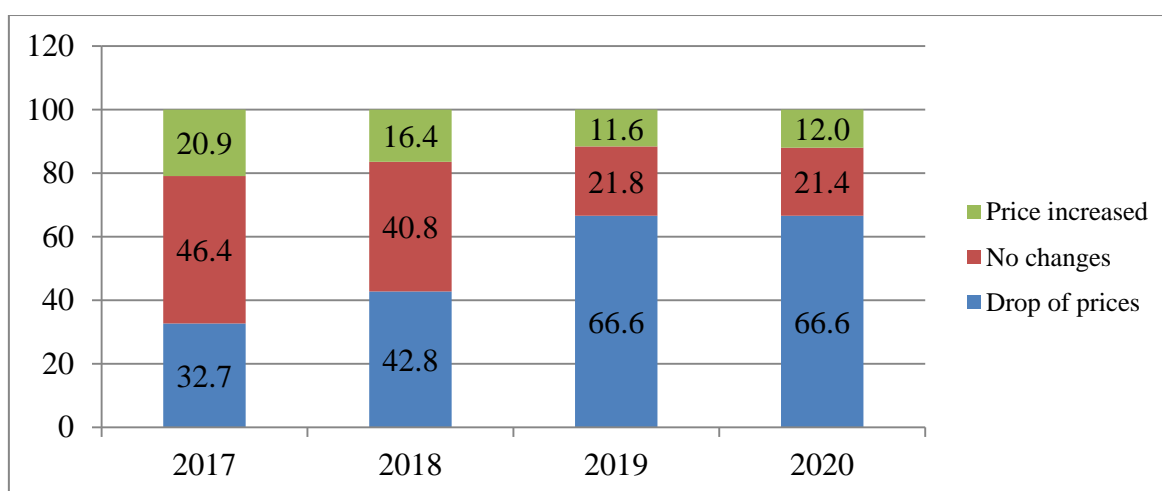


Figure 6. Change in the selling price of imported consumer goods due to the entry into force of the FTA (%)

Source: Choi (2020), pp. 35-36

That is, it is necessary to reduce the excessive market power of distributors and suppress monopoly. In addition, when improving the distribution system, constant

monitoring is required so that the decrease in prices for imported goods really leads to a decrease in consumer prices. Otherwise, the benefits of FTAs will be an advantage only to some importers and distributors.

d) Activation of continuous economic cooperation with FTA signatory countries and development of new strategies

For provision of constant energy resources, the Korean government is actively promoting the conclusion of free trade agreements with countries rich in natural resources, such as Russia and Uzbekistan. Moreover, by signing free trade agreements, the Korean government is actively not only increasing trade with developing countries, but also gaining more experience and knowledge of Korea's economic development to expand practical economic development and cooperation (Table 7).

Table 7. Measures for developing international cooperation of the Republic of Korea through the continuous extension of the global FTA network

Partner country	The main directions of international cooperation
The USA	<ul style="list-style-type: none"> - extension of supply chains such as semiconductors and electric batteries - advanced scientific and technical cooperation - extension of joint research and exchange of human resources between the two countries in the field of new technologies, such as 6G communication, quantum technologies and biotechnology
China	<ul style="list-style-type: none"> - extension of the supply chain of constant raw materials and semi-finished products - strengthening the basis of bilateral cooperation for the protection of investors and the protection of intellectual property
Russia	<ul style="list-style-type: none"> - cooperation in the construction of an industrial complex in Primorsky Krai - extension of cooperation in the shipbuilding (LNG, icebreaking) industry - extension of investment cooperation in the fields of energy, railways, ports and healthcare - internet platform development project
Uzbekistan	<ul style="list-style-type: none"> - strengthening resource cooperation based on the mining of rare metals - facilitation of the opening of cooperation models through the transfer of technologies for processing natural resources - modernization of the main infrastructure facilities supported by EDCF
Vietnam, Indonesia, India	<ul style="list-style-type: none"> - strengthening economic cooperation by development and modernization of the main social infrastructure - Vietnam: Creation of a smart housing complex - Indonesia: advising on capital transfer and cooperation in the field of natural resources development. - India: Nagpur-Mumbai Urban Development and Modernization Project

Source: Yoon (2020), pp. 4-5

Summarizing the foreign economic policy of the Korean government in the XXI century, we can say that it actively responds to the global economic situation of increasing uncertainty through the global FTA network and strengthens economic cooperation with countries around the world. This is due to the fact that only through

international cooperation it is possible to overcome the uncertainty of the current foreign economy and achieve long-term economic development.

Conclusion

The experience of the foreign trade policy of the Republic of Korea on the conclusion of free trade agreements allows us to conclude that an FTA is a complement to the multilateral cooperation system based on the WTO. This is a real alternative to overcome the current situation, in which the extension of WTO free trade is delayed worldwide, and the negative external economic environment caused by the growth of new protectionism. That is, with the help of the FTA network system, the crisis caused by changes in the international trading environment can be turned into an opportunity for economic development.

In this regard, the Korean government is successfully building a foreign economic policy towards overcoming the global economic crisis and expanding economic cooperation with the countries of the world through FTAs. Currently, the Republic of Korea is at an important stage of promoting its industrial structure and transition to a knowledge-based economy. In other words, industries in which Korea has been competitive, such as household electronics and automobiles, are being rapidly replaced by China. In addition, industries dependent on labor and low wages are rapidly moving to Southeast Asian countries such as Vietnam and Indonesia. On the other hand, the share and efficiency of the service sector in Korea is relatively low compared to developed countries. In order to achieve the development of the knowledge economy and industrial structure, it is necessary to increase the competitiveness of the service sector. In addition, it is necessary to develop new forces of industrial growth and increase the competitiveness of the country through the extension of trade and foreign direct investment. The increase in human and intellectual capital should be promoted by active attracting of foreign direct investment and advanced technologies such as 6G communications, quantum communications and biotechnology based on a free trade agreement.

The opening of the agricultural market in Korea directly entails the restructuring of the agricultural sector, such as the transformation of crop cultivation, the relocation of agricultural labor and the change in the use of land resources. In order to effectively compensate for the damage caused to the agricultural sector as a result of the entry into force of the FTA, the Korean government has passed the "Special Law on Support of Agriculture within the scope of FTAs", which promotes the transition to an advanced agricultural structure (transition from small farms to corporate farms).

In the FTA policy, the Korean government takes into account the long-term aspect of economic development more than the short-term economic benefit. Through the conclusion of FTAs, it has sought to gradually open up the domestic market, improve the domestic economic structure, ensure the competitiveness of domestic industry and improve the quality of life of consumers. The main directions of the policy of the government of the Republic of Korea regarding FTAs are to achieve economic development and strengthen

economic cooperation through trade liberalization, improvement of the economic structure and development of the economic system.

Since the entry into force of the Free Trade Agreement between the Republic of Korea and Chile in 2004, the Korean Government has continuously expanded the FTA network, and this process has been carried out in three stages:

- Stage 1 (FTA 1.0): The decision to promote FTAs and the entry into force of the Free Trade Agreement between the Republic of Korea and Chile (1998-2004).

- Stage 2 (FTA 2.0): Creation of a roadmap for the future promotion of FTAs and the entry into force of Free Trade Agreements between the Republic of Korea and the EU, as well as the USA (2004-2012).

- Stage 3 (FTA 3.0): Preparation of a new trade roadmap and the stage of response to economic integration in East Asia (2012- present).

The Republic of Korea has no choice but to continue its open trade policy due to the small domestic market and high dependence on trade. In addition, Korea's foreign economic policy through FTAs can be considered successful, since it has contributed to the extension of the world market and trade liberalization within the export-oriented economic structure. In particular, Korea is ahead of Japan and China in terms of the potential for the development of the global market, free trade and a favorable trading environment. Under the conditions of growing uncertainty in the global trading environment, international cooperation is absolutely necessary. Compared to neighboring countries, the Republic of Korea is actively coping with this international situation.

The analysis has shown that by concluding free trade agreements with various countries of the world, the Republic of Korea has not only achieved the extension of the geography of foreign markets and economic prosperity, but also made the transition to an advanced industrial structure, improving the welfare of the people and ensuring the security of imports of natural energy resources.

FTAs also play an important role in the political, diplomatic, and security issues of the country. In this regard, the conclusion of an FTA between Korea, China and Japan is urgently needed to improve relations with North Korea. However, when concluding an FTA, it is important to take account of internal conditions in full in order to minimize the internal damage caused by the opening of the market and to form a national consensus. Because the most important thing is not the number of countries that have signed an FTA, but the stability of economic development after the conclusion of the FTA. The experience of the Republic of Korea in foreign economic policy through the conclusion of the FTA can be a good example of the successful establishment of foreign economic policy in response to increased uncertainty in international trade due to the growth of protectionism.

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DEALING WITH THE ECONOMIC AND PSYCHOLOGICAL CONSEQUENCES OF WAR: EXPERIENCE ECONOMY IN LOCAL COMMUNITIES

Tetyana NIKOLAYCHUK¹

Abstract: Protected areas and other natural territories are very important part of the Ukrainian economy. Due to the numerous possibilities of protected areas, it can occupy a significant part of the post-war reconstruction's destinations. The methodological approaches of protected areas development are considered as tools of economic and innovative regional development and expansion of investment flows. The post-war market of Ukraine depends on the the recovery level of the country's population, because the innovative forms of economic activity launching presupposes the existence of a healthy society ready of reforms and changes. Taking into account given the above, it is actualized the necessity to find out the essence and role of the facilities of nature reserve fund in the system of balanced economically efficient use of nature, their place in the financial and market infrastructures, the definition of the investment potential of reserve areas. The investigation of the market without inter-study differences was conducted by a quantitative literature review (a meta-analysis). Forming indicators of the most vulnerable society groups were analyzed by the systematization method. The main vectors of innovative growth in the EU countries and the adapting possibility of these tools to the Ukrainian economy were formed by the comparative method. As a result of research, the author analyzed economic, organizational, environmental and social principles protected areas increasing, it is established is considered the protected areas as a code of multitask development and economic stimulation to cooperate with business entities.

Keywords: protected areas, renovation economy, behavioral deviations, postwar period, local communities, experience economy, consequences of war.

JEL Code: K 32, Q 38, Q 28, Q 29, Q 39

Introduction

As of the beginning of 2022, there were 8,633 territories and objects of the nature reserve fund in Ukraine - this is 6.8% of the country's area. The nature reserve fund includes 5 biosphere reserves, 19 nature reserves, 53 national natural parks. Some national parks are in a zone of humanitarian crisis; other protected areas are deprived of funding (e.g., the biosphere reserve Askania-Nova, Kherson Region, where there is a large number of wild animals). Askania-Nova is Ukrainian nature reserve, located in Kherson Oblast, Ukraine, within the dry Taurida steppe near Oleshky Sands and active member of the UNESCO Man and the Biosphere Programme (Ministry of Ecology and Natural Resources of Ukraine, 2022).

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To date, the war of the Russian Federation against Ukraine has affected 900 protected areas with an area of 1.2 million hectares, which is about a third of the area of all protected areas in Ukraine. Under threat of destruction in Ukraine are 14 Ramsar sites with an area of 397.7 thousand hectares, about 200 territories of the Emerald Network with an area of 2.9 million hectares, and biosphere reserves" (Ministry of Ecology and Natural Resources of Ukraine, 2022) (Table 1).

Table 1. Objects of the Nature Reserve Fund of Ukraine, which suffered as a result of the invasion of the Russian Federation on the territory of Ukraine (May 2022)

№	Name of the Protected area facility and legal status	Area and location (region, territorial community)
1	Askania-Nova named after F.E. Falz-Feina (reserve)	Kherson region, 33,307.6 hectares, of which 11,054 hectares are "completely protected"
2	Azov-Syvash National Natural Park	52,154 hectares, Kherson region, includes Lake Sivash, spit of Byruchy Island
3	Dzharylgat National Natural Park	Skadovsky district, Kherson region, 10,000 hectares
4	Nature Reserve "Yelanetsky Steppe"	town Yelanets, Mykolaiv region, (IUCN category — Ia (strict regime reserve), 1,675.7 hectares
5	"Feldman Ecopark"	Lisne village, Dergachiv district, Kharkiv region, 140.5 hectares
6	Mykolaiv Zoo	Mykolaiv region, Mykolaiv, 18, area 0.48 hectares
7	Kharkiv Zoo	Kharkiv, st. Sumska, 35, area 22 hectares
8	Oransky is a landscape reserve of local importance	Ivankiv district, Kyiv region, 100 hectares

Source: Ministry of Ecology and Natural Resources of Ukraine <https://mepr.gov.ua/en/>; Nature Reserve Fund of Ukraine <https://wownature.in.ua/en/>

The military the Russian invasion in Ukraine have led to numerous transformations in the social, economic, political, ecological and regulatory field. In this research the basis for the development of a favorable investment climate in protected areas have been analyzed, including the tools for cooperation between government agencies, local communities, protected areas and private entrepreneurs; proposed comprehensive approach to the development of post war period in Ukraine, taking into account strong and weak sides of protected areas for potential investors. (Fig.1).

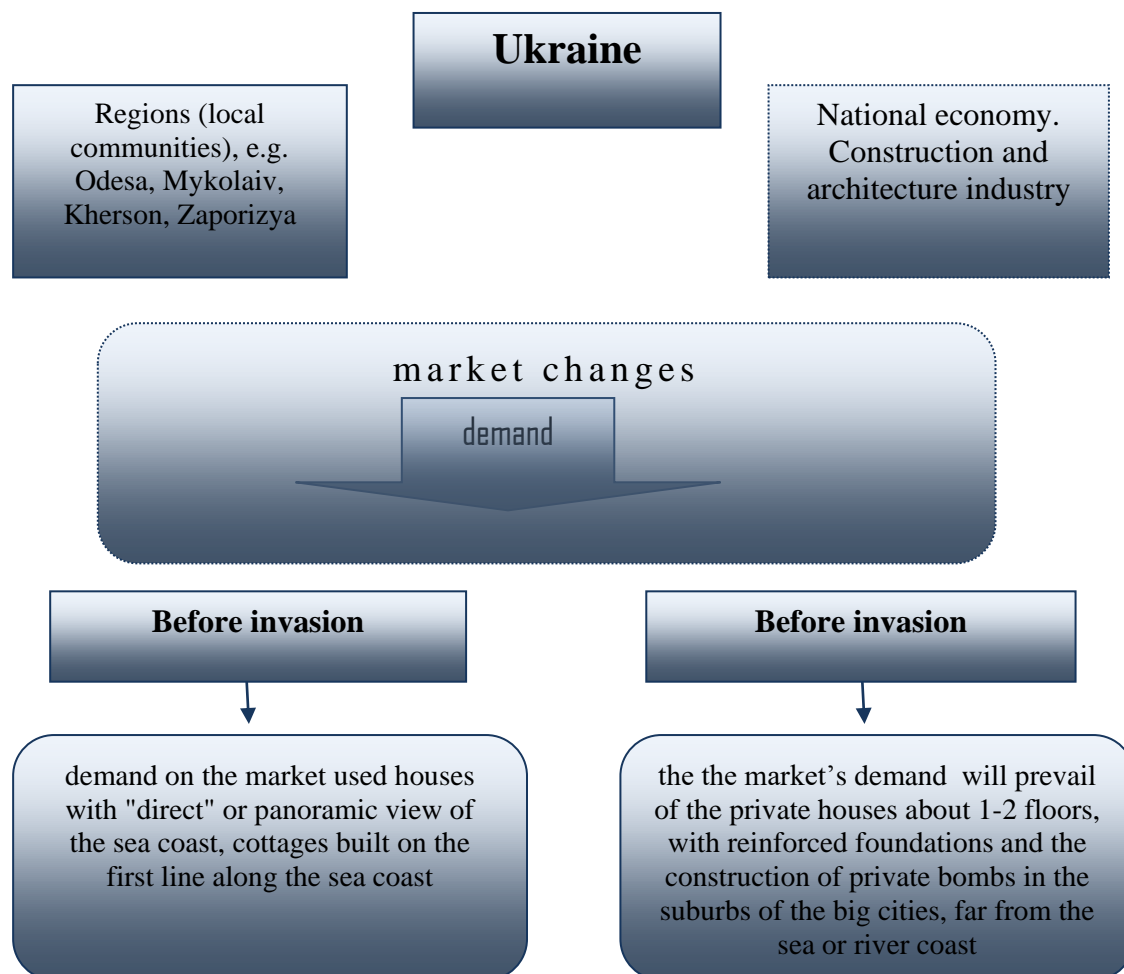


Figure 1. The post-war demand in Ukraine

Source: own study

The post-war market in Ukraine is a form of a transitional type of market, where there is demand and goods of a military-political sector, which is being transformed into traditional branches of national economy, which are relevant for post-military society. (E.g., the bill according to which buildings should be equipped with mandatory bombs).

The post-war market is undergoing a changing due to psychological and social transformations in society. Development of the system of ethical and normative rules of inspection and supervision. The deviant behavior as a social phenomenon can negatively affect not only the individual but also others, and even the economic well-being of the region (Fig.2).

The formation of effective tools to ban deviant behavior in the martial law and postwar period is the key to restoring the institutions of civil society and market economy of Ukraine. For Ukraine Russian invasion means destruction of existing markets, business collaborations and the formation of new vectors of military and civilian activities

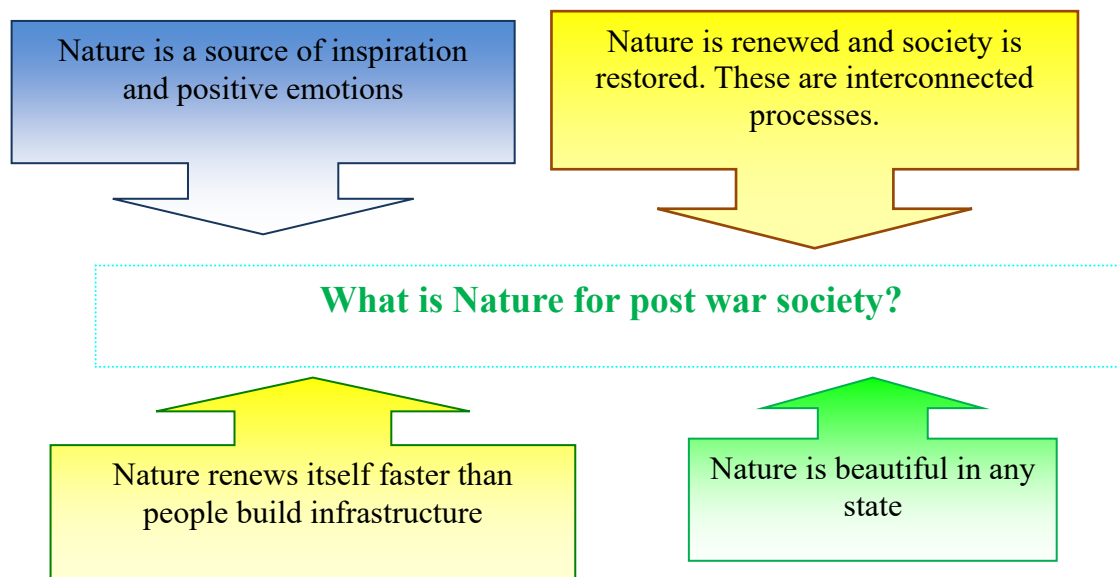


Figure 2. The post-war purpose of the Nature in Ukraine

Source: own elaboration

1. Litterature review

Joshua Barenbaum, Vladislav Ruchkin and Mary Schwab-Stone (2004) claim, that the first literature on the effects of war on children dates largely from World War II, and is sparse and of variable quality.

According to Ronald C. Kessler (Kessler, 2000), any assessment of the societal impact of a disorder must begin with a consideration of prevalence.

Lawrence O. Gostin, Leonard S. Rubinstein note (2022), that military aggression by the Russia causes the destruction either critical infrastructure as hospitals or other rehabilitation facilities.

Lack of habitual conditions causes people to feel anxious, and the inability to receive medical services - a feeling of aggression, especially providing medical care to children. Edenberg (2017) admits about the conditions of military invasion, an important method of combating psychological fatigue, depressive attacks and the way to challenge the political narratives and artistic development of the individual.

Fournier (2018) points out that the military conflict between Russia and Ukraine has been in a state of frozen aggression for many years. The psychological attitudes of Ukrainians, as a young nation, do not coincide with the Soviet sentiments of Russian citizens. Catherine Wanner (2021) believes that empathic support in postwar period is a very important. There is necessary to combine social deviations of personal and collective nature. Modell & Haggerty (1991) believe that the study of the life course may offer one avenue of inquiry can connect the micro- and macro- levels of analysis, thus connecting the soldier's story to that of his changing society. Farhood (1999) claims about very important indicators in post war society, as health and interactional indicators of family adaptation: physical and psychological health, depression, and interpersonal and marital relationships.

Vinokur, Caplan, and Williams (1987) suggest that exposure to war produces long-lasting effects on emotional well-being. Tankink and Richters (2007) believe, that tensions experienced between soldiers and civilians were re-enacted in domestic violence. Navia, and Ossa (2005) claim about psychological aftereffects of economic extortive kidnapping on families during captivity, and on kidnapped individuals and family members. Kirlic and Langrock (2012) believe that the context of stress includes political, economic and psychological post-war environment. However, Jensenm and Jonshawm (1993) suggest that massive exposure to wartime trauma seems likely to overwhelm most children's defenses; however, children's cognitive immaturity, plasticity, and innate adaptive capacities may mitigate war's effects in low-to-moderately intense wartime settings, resulting in self-protective, adaptive, cognitive styles that allow effective functioning after acclimatization. Hatun and Şirin (2021) claim that many people experienced problems, such as post-traumatic stress, the inadequacy of psychosocial functioning, social disapproval, and alienation during the adaptation to life after war. Further, coping resources such as positive personality traits, spiritual coping, making sense of experience, state assurance, and family and fellow Veterans support were found to facilitate the adaptation process.

According to the different research positions, it is worth highlighting the most vulnerable categories to behavioral deviations (in our opinion): 1) soldiers and conscripts, according to the Ph. 9 Ar. 1 Law of Ukraine "On Military Duty and Military Service" (On Military Duty and Military Service, 1992); 2) police officers, according to the Law of Ukraine "On the National Police of Ukraine" (On the National Police of Ukraine, 2015); 3) employees of the Ministry of Emergencies of Ukraine, according to the Resolution of the Verkhovna Rada of Ukraine "On approval of the Regulations on the Civil Service of Ukraine for Emergencies" (On approval of the Regulations on the Civil Service of Ukraine for Emergencies, 2015); 4) doctors and other medical staff, emergency medical care, according to the order of the Ministry of Health of Ukraine "On approval of the Procedure for primary care" (On approval of the Procedure for primary care, 2018); 5) members of the city's territorial defense, according to the Law of Ukraine "On Defense of Ukraine" (On Defense of Ukraine, 2022); 6) civil servants, according to the Law of Ukraine "On Civil Service" (On Civil Service, 2022); 7) judges and court staff, according to the Law of Ukraine "On the judiciary and the status of judges" (On the judiciary and the status of judges, 2016); 8) forensic medical examiners and criminologists, according to the "On forensic examination" (On forensic examination, 1994) (Figure 3).

2. Data and Methodology

Our meta-analysis included forming protected areas community as vectors of society renovation. Research to date on protected areas development has tended to focus in two directions. First, an abundant literature has developed describing the potential benefits as from ecological point of view (Dastgerdi et al., 2020), so for social one (Pomeroy et al., 2007).

In post war Ukraine protected areas result from human decision-making and innovative management processes and establish an incentive structure that requires changes in market behaviour to achieve success. The protected areas research methodology in which they operate incorporates economic, social, political and institutional elements at the community, regional, national and international levels, all of which can influence the goals and objectives pursued by launching innovative forms of protected areas. The protected natural areas are becoming increasingly popular vacation destinations with both international and domestic travellers (Petric & Mandic, 2014).

The post-war market is undergoing a changing due to psychological and social transformations in society. The system is development of ethical and normative rules of inspection and supervision.

The most important post war society challenges are connected with eco-oriented market framework. The entry into the current stage of the market economy, of profound transformations, with multidimensional implications and resonances, represents the conscious acceptance phase of the new economic and social form, which also requires an adequate social and institutional organization (Lungu, 2019).

Ecologization is concerned as a socio-economic megatrend, based on the sustainable human and socio-economic development concept, is a comparatively “young” and at the same time powerful megatrend. All of its manifestations lead to changing the human lifestyles and socio-economic activities worldwide (Shishcan & Kaim, 2017).

The Natural Reserve Fund objects in the post war period are considered as:

- 1) a source of natural resources, ecological and economic asset of regions (territorial communities);
- 2) touristic and recreational complex;
- 3) cultural and ethnic hub for the region;
- 4) the object of cultural heritage;
- 5) part of the region's economy, country or world level;
- 6) fishing facility;
- 7) community economic and environmental development center;
- 8) part of water and forestry.

Taking into account the forms of cooperation between the institutions of Ukrainian Nature Reserve Fund and private entrepreneurs and the definition of economic and organizational role of the subject, we propose to differentiate services into simple or one-component and combined.

Simple services - this is a such type of services, that are formed through a homogeneous type of activity, and is able to be provided with ecological and economic and regulatory and organizational resources namely the administrations of institutions of Nature Reserve Fund of Ukraine (Table 2) (Fig.4).

Table 2. The main rates of simple services provided by the Nature Reserved Fund of Ukraine, 2021

		Name						
		Nature Park Vyzhnytsky	Nature Park Homilshanski lisy	Carpathian Bio Reserve	Nature Park Mesinskiy	Nature Park Pripyat-Stohid	Nature Park Synevyr	Carpathian Nature Park
		Price / cost of the service (persons, hours, days, etc.)						
Types of services	Ecological routes (depends on time)	20.00 UAH / person	26.00-42.00 UAH / person	25 UAH / person	15 UAH / person	55 UAH / hour	25 UAH / person	30 UAH / person
	Short-term vacation	20.00 UAH / person	15 UAH / person	30 UAH / person	100 UAH / 5 persons	15 UAH / person	25 UAH / person	25 UAH / person
	Parking in designated areas	10.00 UAH / unit	10.00 UAH / unit	12 UAH / unit	10 UAH / unit	110 UAH / hour	75 UAH / entrance	15 UAH / unit
	Use of a specially arranged recreational place (gazebo, etc.)	50 UAH / hour	50 UAH / hour	66.67 UAH / hour	45 UAH / person	120 UAH / day	30 UAH / hour	150 UAH / day
	Accommodation (bed-room, forest house, lounge, etc.)	400 UAH / day	840 UAH / day	120 UAH / day	150 UAH / person (summer time); 120 UAH / person (winter time)	absent	75-420 UAH / day	absent

Source: Nature Park Vyzhnytsky <http://www.npp.cv.ua/turism.php>; Nature Park Homilshanski lisy <http://www.gomilsha.org.ua/jupgrade/rozcinky>; Carpathian Bio Reserve <http://cbr.nature.org.ua/doc/plposl.pdf>; Nature Park Mesinskiy, <http://mezinpark.com.ua/rekreasiya/umovy-vidviduvannya/>; Nature Park Pripyat-Stohid, <http://www.pripyat-stohid.com.ua/uk/documenty/10-dokumentni/199-perelik-platnih-poslug-na-2019-rik>; Nature Park Synevyr <http://www.npp-synevyr.net.ua/price.html>

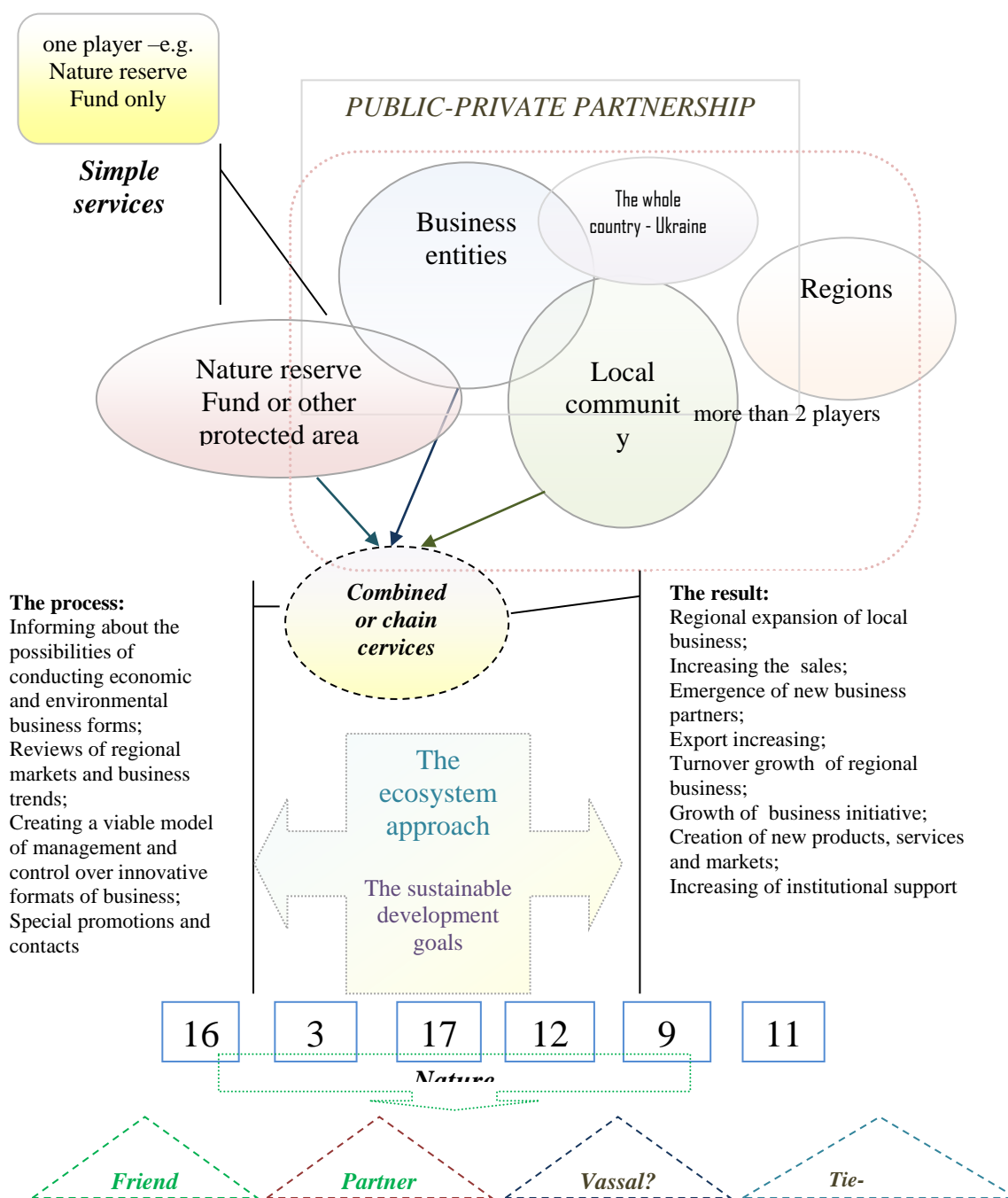


Figure 4. Simple services vs combined (chain) services

Source: own elaboration

Combined services of ecological and economic direction (this is a type of services, which can be presented, as a set of heterogeneous types of activities and divided into stages, which transforms each other in order to obtain the final result. Combined services cannot be given only by the institutions of NRF themselves, as they do not have sufficient level of material and technician provision and economic and social resources (Figure 5).

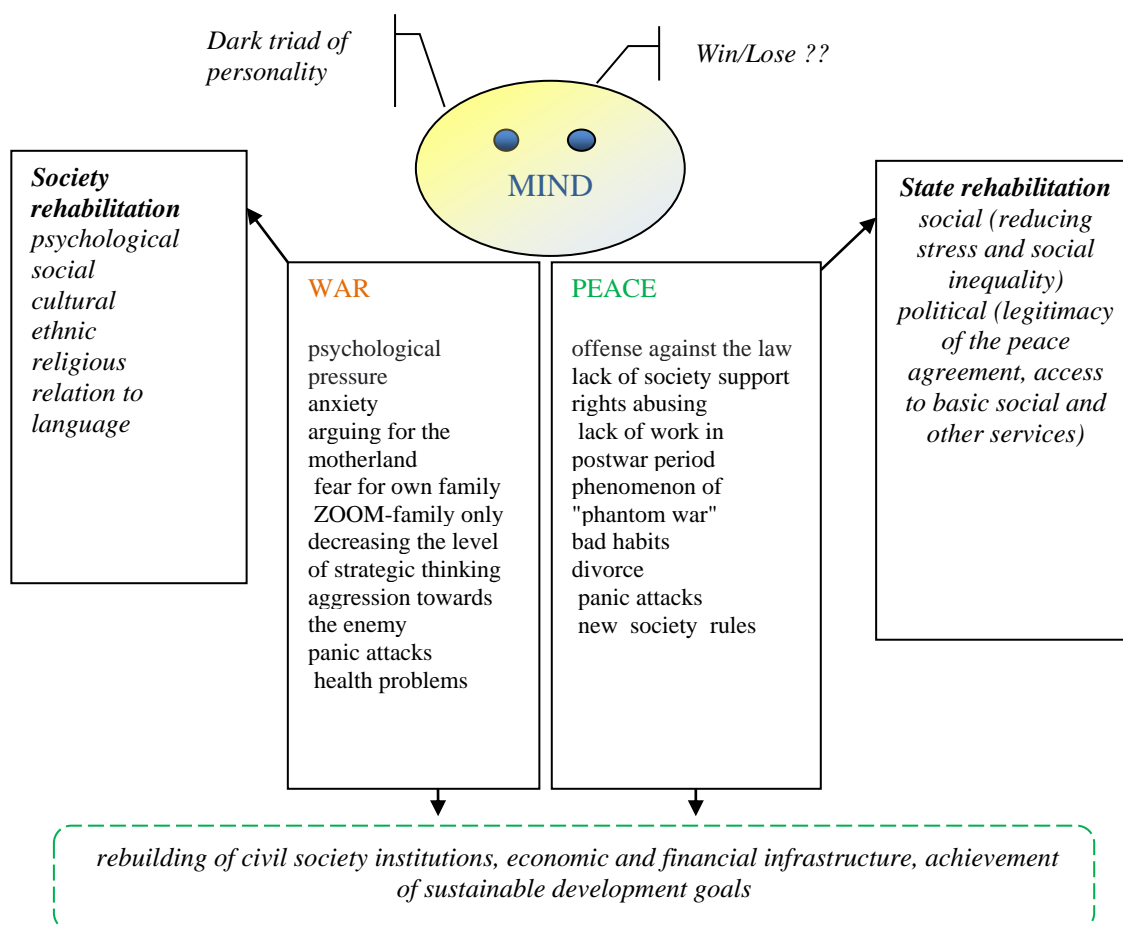


Figure 5. The rehabilitation tools in postwar period in Ukraine

Source: own elaboration

Actually, combined services are a tool of public and private partnership between administrations of institutions of NRF and representatives of private sector of economy (catering, organization of holidays, quests) and a form of building an innovative financial infrastructure in the field of reserve affair) (Annex A). According Ukrainian legislative system the services, provided by Nature Reserved Fund areas, are separated in traditional (e.g. tourism, recreation) and mental (e.g. intellectual games)

There is necessary to present personal and social (group) impacts in a behavioral economic model, long-term development of regions through cooperation between the natural reserve fund, local communities and business entities. We have some important questions: How long are we going to deal with the psychological consequences? what consequences are more important in the context of economic development: personal or social (group)? How should the Ukrainian government develop these financial or economic arrangements in the future? We can see traditional methods of rehabilitation, such as: physiotherapy, occupational therapy, psychological and psychological help, sanatorium-resort treatment, prosthetics (microelectric prostheses, osteointegration, target restoration of the mouse), mentoring in the post of military period.

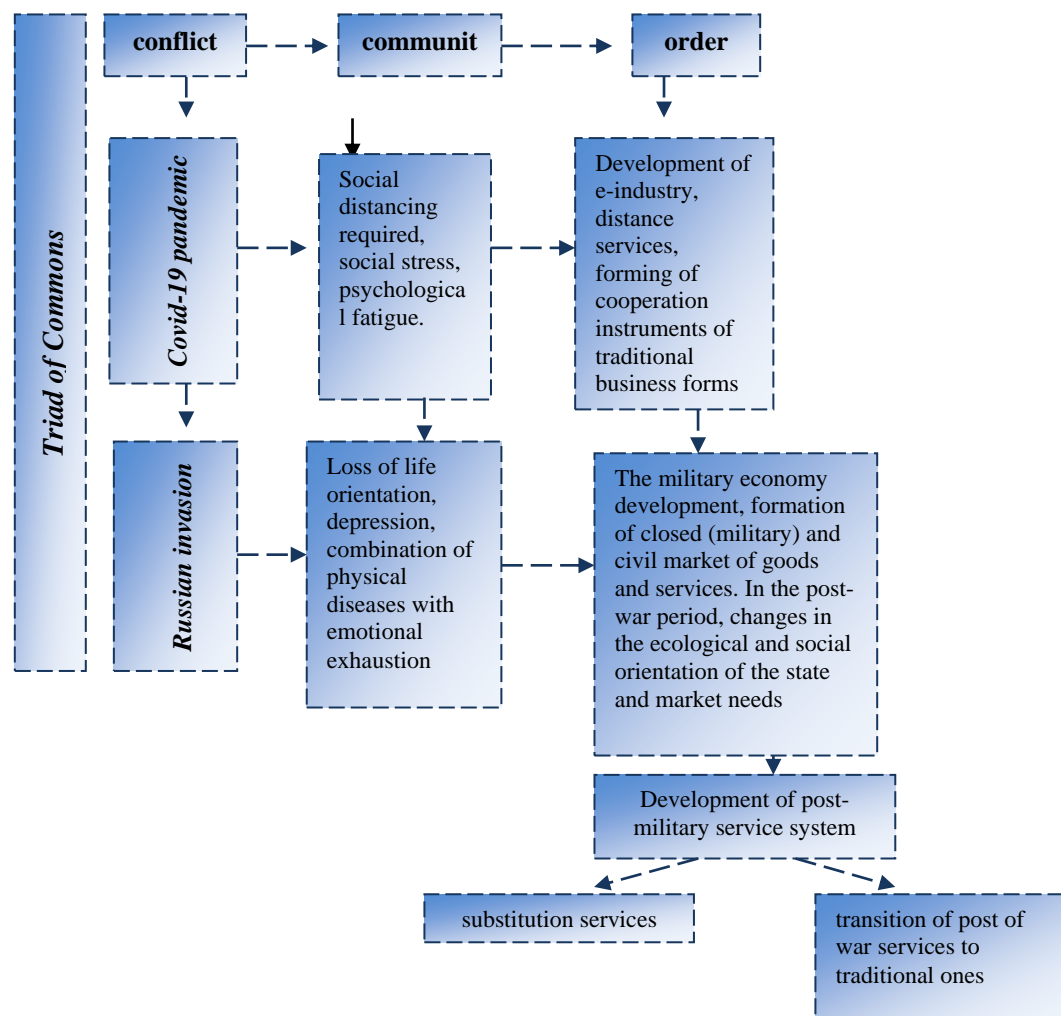


Figure 6. The Triad of Commons in Ukrainian economy system

Source: own elaboration

Russian invasion in Ukraine we can describe as a so-called *mortal code method* (MCM) (Bashkirova, 2019). But can be the Mortal Code in the economy or environmental mortal code? Or can we consider the protected areas as economic and environmental code of local communities, which is violated by Russian mortal code? In the traditional view, the mortal code represents a look at the phenomenon of death. For the economy the mortal code is a system of permits or inactivity, which causes destruction at different levels (from macro to meso-level). We propose to consider the mortal code at the macro level (Figure 6).

The mortal code can be voluntary: corruption; technology of goods production that does not meet technical or other legislative requirements; salary payment in envelopes, which leads to qualified personnel outflow and violates tax and labor legislation of Ukraine.

The mortal code can be a command (administrative) one: inefficient business management plan; high tax burden; bureaucratic red tape; military actions on the territory of the country; inefficiency of traditional forms of doing business under changing socio-

economic architecture of the country (e.g., in the context of a coronavirus pandemic there was a necessity of developing digital business twins).

Analyzing the J. Commons triad (Commons, 1934), which consists of the main elements: conflict-community-order, we can consider "the conflict element" as a mechanism for the intrusion of a mortal code in the socio-economics-ecological system.

3. The Model and Findings

So, it is proposed to allocate two main vectors of the rehabilitation economy in the post-war period:

- Society rehabilitation of Ukraine:
- Physical (rehabilitation system of military and civilian persons affected by military aggression);
- Psychological - a complex of instruments that will promote moral and psychological recovery of the population, especially children (e.g., psychological work with all population segments in terms of hiding military memories, difference in sounds of missiles, RSO, etc.)
- Social – instruments of social and economic development of society, renewal of access not only to basic services, but also opportunity to get other important services.
- Cultural-ethnic - instruments to combat cultural contradictions, including the use of Russian language by the population at the household level;
- Ecological - increasing the economic and other innovative vectors of restoration on protected and other natural areas, e.g. protected areas, as multi – hubs.

The rehabilitation of the country also consists of the following elements:

Economic vector is a combination of traditional forms of economic activity, which is characteristic of Ukraine and introduction of innovative forms:

- *The social vector* is formed a comprehensive system of reducing social tension and inequality, as well as overcoming poverty in the post-war period.
- *The political vector* is aimed the peace agreement's legitimacy or e completing the victory, the possibility of people access to all levels of services, not only basic ones.
- *Ecological vector* – overcoming of harmful consequences for the environment of military actions, which led to ecological catastrophe (e.g., phosphorous bombs, fuel-oil materials, which got into water area of the Black and Azov seas).

The formation of a comprehensive rehabilitation system, both for the population of the country and for the state itself, aimed at the restoration of civil society, including at the highest level than took place before Russian military invasion, development of financial and digital infrastructure, achievement the sustainable development goals (Fig.7).

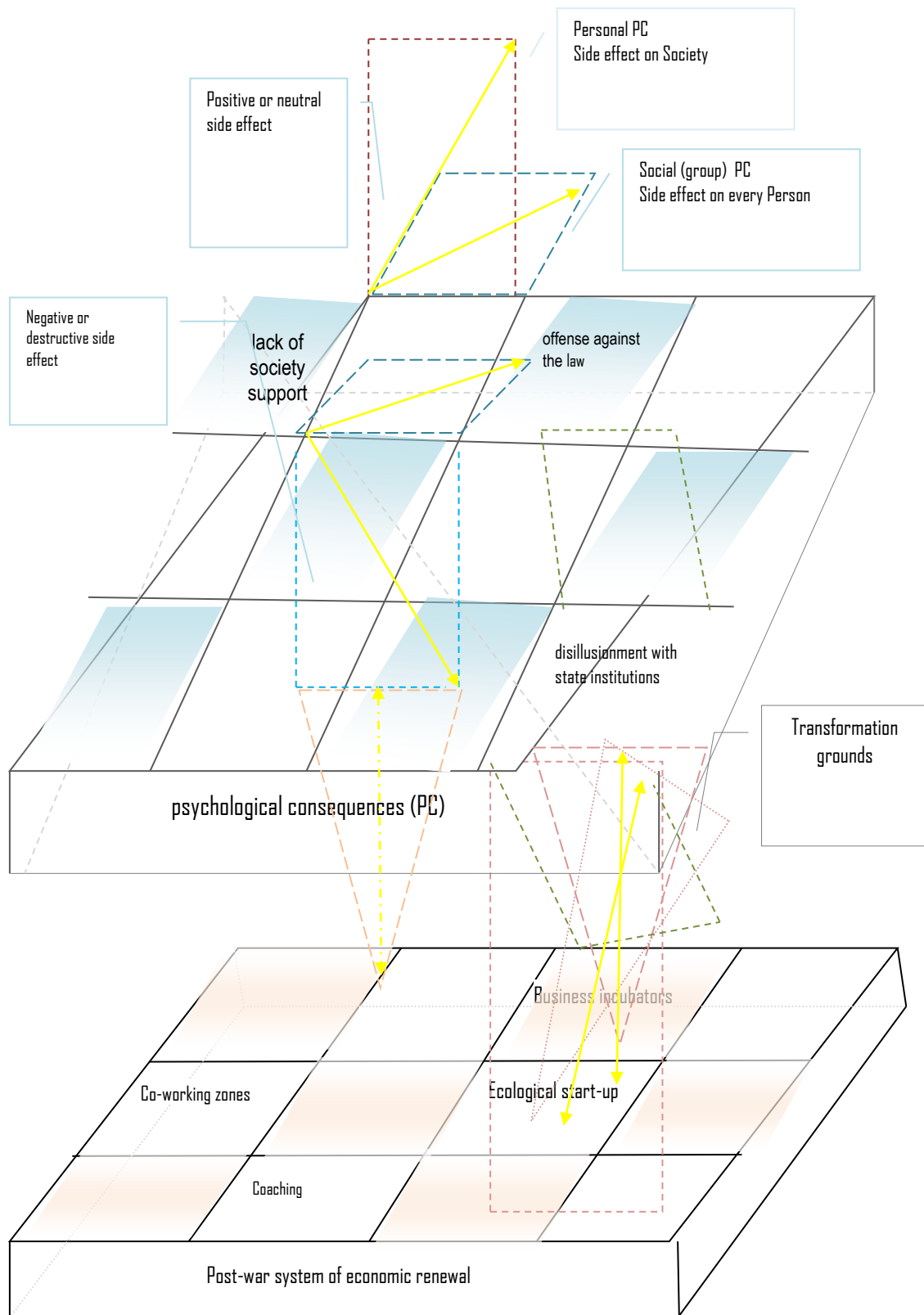


Figure 7. The side effect of psychological consequences on the post-war system of economic renewal

Source: own elaboration

From the psychological economy point of view, the formation of a complex system of rehabilitation represents a number of elements that combine the motivational and psychological state of society and economic instruments of development of the post-military market in Ukraine: gender equality system of men and women in the post of military (as of 2021, 95% of Ukrainian families had a model where the main source of income was a man (Regions of Ukraine, 2021), the main strategic object of Ukraine is a family: man, woman and children. Since it is due to families that a reproductive boom can take place in Ukraine, which will ensure the emergence of the population, will prevent the decline and extinction of the nation; economic and social support from both the state and non-governmental institutions, e.g., private clubs, which form an audience of similar interests; fight against harmful habits that are common to military conflicts, such as smoking, preventing the persecution of men for the desire to change sexual orientation after the end of the military conflict (post war sex withdrawal). Ukraine also prohibits single-sex marriages at the legislative level, a decrease of blame because other persons died or received severe injuries (the possibility of adoption of children under simplified procedure, especially with close acquaintance with the child), establishment and support eco- business centers, e.g., the institutional task of which is to support small and innovative businesses on protected and other natural areas. But, whether can be the side effect from personal PC or social (group) PC so big to change the economic line? (Fig 8, Fig.9).

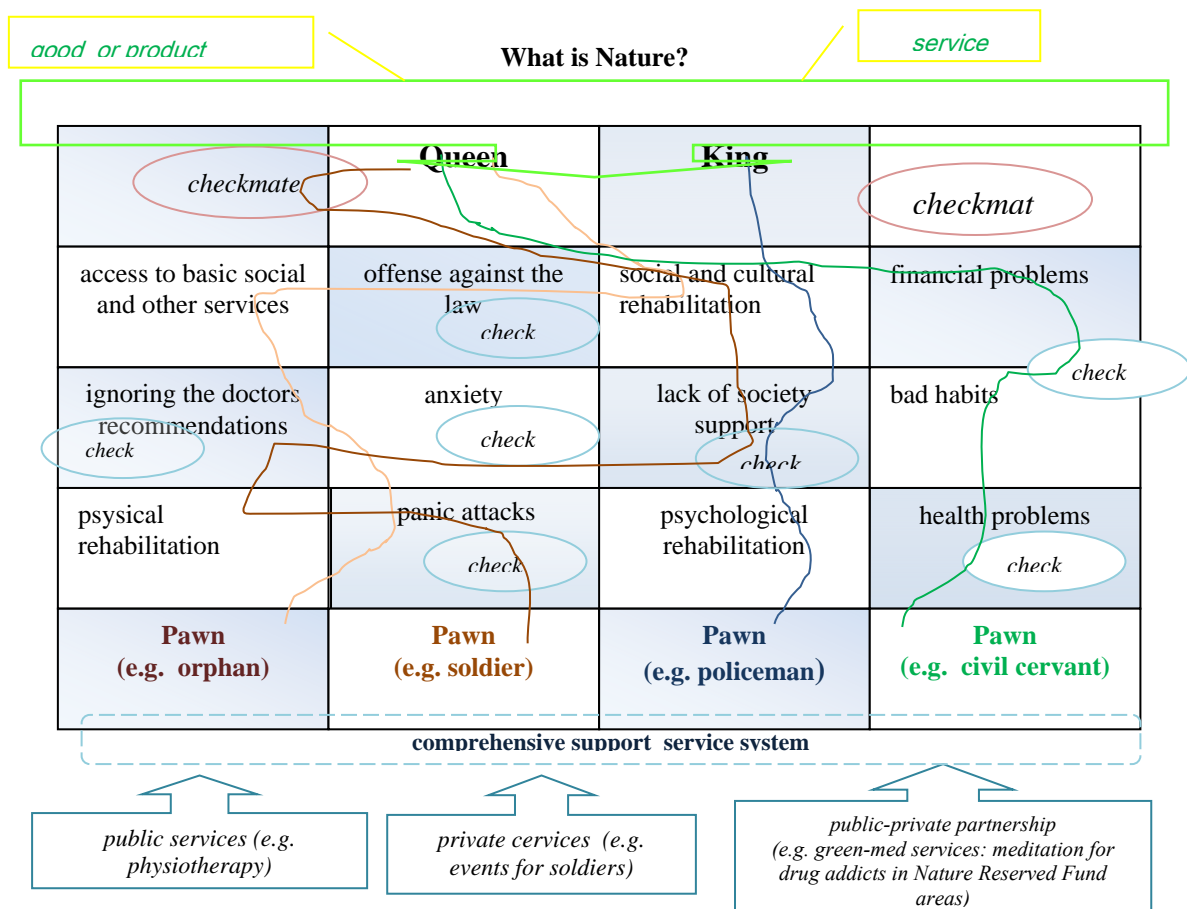


Figure 8. The First board: classic EU chess as post war modeling system

Source: own study

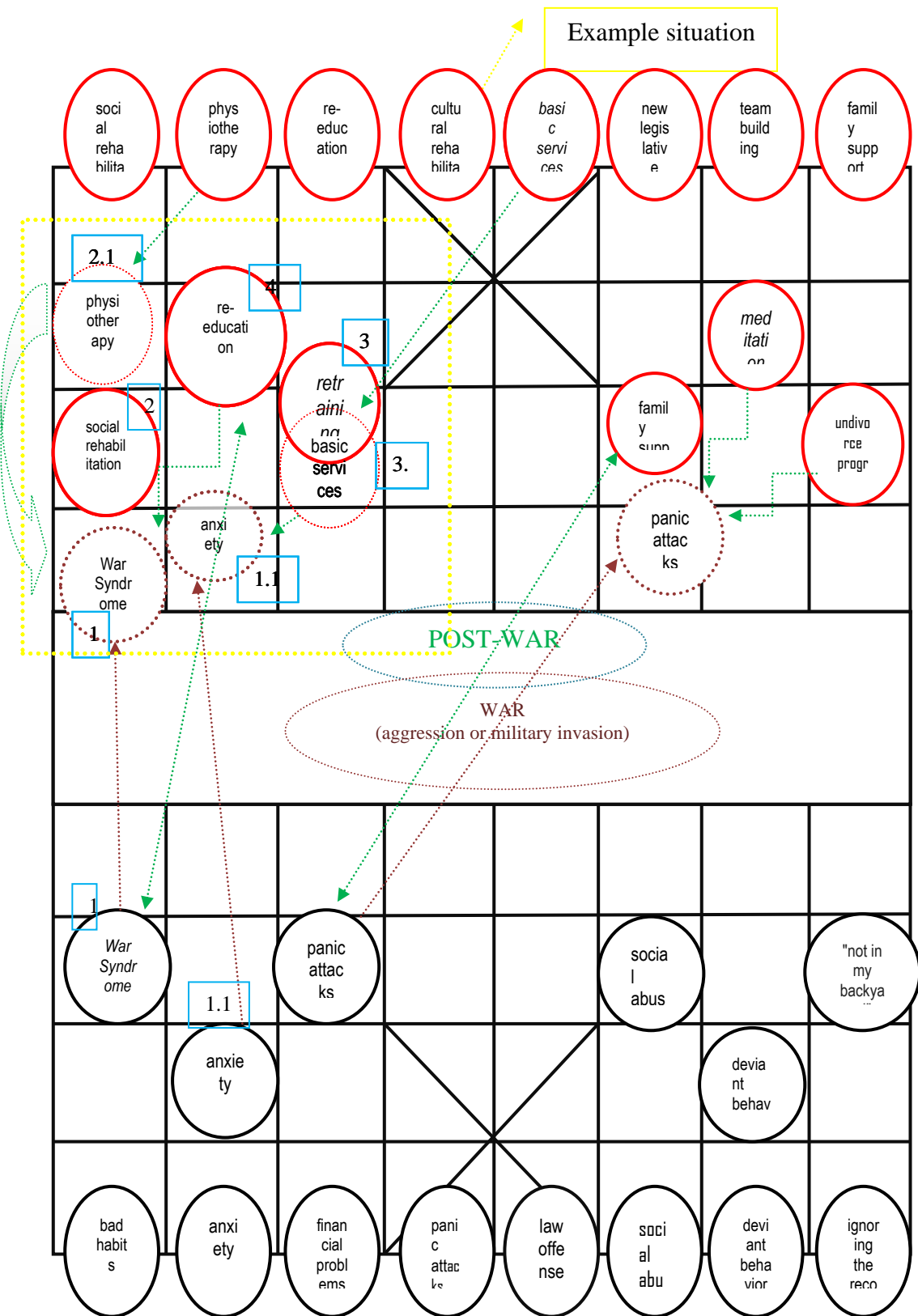


Figure 9. The Second board: Xiangqi, Chinese chess as post war modeling system
Source: own elaboration

The classic EU chess model contains own algorithm and main rules.

The Algorithm of classic EU chess service model (main positions)

Profile id: Δ Pawn \rightarrow id: Queen or King

Profile id: Δ Pawn \rightarrow more mistakes \rightarrow social aggression \rightarrow lack of services

Profile id Δ Queen: health person in post war period

Profile id Δ King : health person, service maker for other harmful persons

Main rules:

Every pawn can be a health person, if the way is right.

Every pawn selects a path on the so-called chess board.


Every square is pros or cons for person, access to public or private services.


More cons less – chance to be King or Queen.

A lot of cons are checkmate for postwar society.

Not every con is bad for person, but many cons can provide deviant behavior (e.g. prison or madhouse).

The *second board: Xiangqi, Chinese chess* modeling also contains own algorithm and main rules. *Main rules of Chinese chess model:*

 - public and private post-war services

 - mental, social and physic problems

Algorithm of Xiangqi, Chinese chess service model (main positions by chess move ranging). Example situation, which position is more important for person by current circumstances: Position 1 > Position 2 or Positions 2+4. In this case person needs treatment and further rehabilitation.

Position 2 > Position 1, or Positions 2 +2.1 > Positions 1+ 1.1, or Positions 2+3+ 3.1 > 1+ 1.1. In this case person made the whole rehabilitation course, had retraining.

This person goes back and experiences events from his past life. Position 1~ Position 2 or 2.1 or 3+4. In this case person should be the first line of support in our social safety net if the individual needs help.

Often it is the result of sleep deprivation, mental fatigue, depression, sleep apnea, hypoxia, narcolepsy, or idiopathic hypersomnia (Fig. 10).

So, from economical point of view eco-oriented business incubators can be the new renovation way for Ukrainian economy:

1. eco-systems business development;
2. consulting – business area;
3. co-working zone at prices lower than market;
4. the architecture of the economy, which is interconnected with society and nature;
5. focus of business activity;
6. development of innovative business models;

7. selection of tutors and coaches, forming of templates of agreements;
8. space equipment for rendering services or selling goods;
9. support and promotion of graduates oriented to eco-business;
10. launch of night services oriented not only to support the society, but also to regional or local business development system.

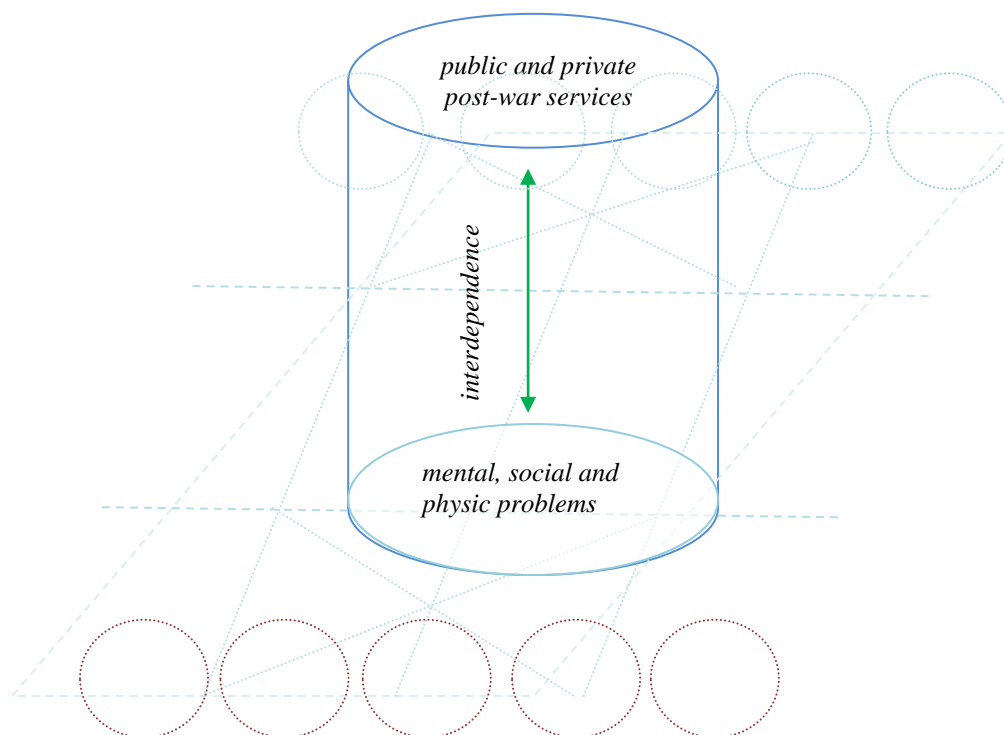


Figure 10. The cell's capacity in Xiangqi, Chinese chess

Source: own study

Conclusions

The comprehensive development of the Ukrainian economy in the post-war period mostly depends on the labor capital of the country. The strategy's tools of coping with the psychological consequences of the post-war period will make possible to restore social and economic systems of Ukraine. The psychological restoration both society and individual social groups is the basis for building a post-war market's architecture. We have considered the mortal code method in the economy, which, according to the Commons triad, is a conflict. If we suggest the Russian invasion on Ukraine, then protected areas can be designated as restoration codes of regions in a post-war society.

Using the EU classic chess model and Chinese chess model we can find not only right comprehensive decision for each person, also avoid many problems of the pre-war socio-economy of Ukraine. The side effect of each person's route can be an indicator of economic and environmental success for the social group or whole society. Should we

think about the post-war consequences now? Modeling is the first step in post war society renovation, which launches the renewing Ukrainian economy.

These two modeling systems will be able to find the most available route for vulnerable social groups and side effect for whole society and environment.

The study was conducted with the aim of identifying the main possible milestones related to overcoming the war consequences, identifying dependence (of a social group (individual) or part of society and restoring the economic system (for example, the development of an innovative or eco-friendly business in the context of decentralization in the post-war period).

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Annex A.

Analysis of services provided by the Nature Reserved Fund of Ukraine, 2022 (before Russian invasion)

Name								
	Nature Park Vyzhnyt sky	Nature Park Homilshanski lisy	Carpathian Bio Reserve	Nature Park Mesinskiy	Nature Park Pripyat-Stohid	Nature Park Synevir	Carpathian Nature Park	
Price / cost of the service (persons, hours, days, etc.)								
Types of services	Ecological routes	20.00 - 50.00 UAH / person	32.50-52.50 UAH / person (depends on time)	from 50 UAH / person	from 2 UAH / person	from 60 UAH / hour	30-165 UAH / person	30 UAH / person
	Short-term vacation	20.00-30.00 UAH / person	from 30 UAH / person	35 UAH / person	from 120 UAH /5 persons	from 25 UAH / person	25 - 120 UAH / person	50 UAH / person
	Parking in designated areas	10.00 UAH / unit	20.00 UAH / unit	20 UAH / unit	20 UAH / unit	45 UAH / hour	80 UAH / entrance	20-50 UAH / unit
	Use of a specially arranged recreational place (gazebo, etc.)	50 UAH / hour	61 UAH / hour	70 UAH / hour	from 60 UAH / person	135 UAH / day	from 50 UAH / hour	150 UAH / day
	Accommodation (bed-room, forest house, lounge, etc.)	1200 UAH / day	1050 UAH / day	from 800 UAH / day	750 UAH / day	absent	from 240 UAH / day	by agreement (in partner-hostel, hotel, in the tent, mountain apartments)
	Use of alanka	200 UAH / day	125-360 UAH / day	from 150 UAH / day		from 180	from 200	from 200
	Sale of seedlings	24-54 UAH / unit	from 27 UAH / unit					
	Events with a commercial component (holidays, festivals, fairs, promotions, competitions , plein airs, etc.)			from 800 UAH / day		by agreement		by agreement
	Amateur photo and video shooting in museums			from 10 UAH / unit				
	Professional photography and video shooting (with CD-disk)					from 300 UAH / day		

	Conference hall rental					200 UAH / day	240 UAH / day	250 UAH / day
	Intellectual games					by agreement		
	Photo exhibition					by agreement		
	Ecological club cheerful and clever					by agreement		
	Polissya regatta tournament					by agreement		
	Fishing tourism					by agreement		
	Helicopter tour around Lake Synevyr						by agreement	

Source: Nature Park Vyzhnytsky <http://www.npp.cv.ua/turism.php>; Nature Park Homilshanski lisy <http://www.gomilsha.org.ua/jupgrade/rozcinky>; Carpathian Bio Reserve <http://cbr.nature.org.ua/doc/plposl.pdf>; Nature Park Mesinskiy, <http://mezinpark.com.ua/rekreatsiya/umovy-vidviduvannya/>; Nature Park Pripyat-Stohid, <http://www.pripyat-stohid.com.ua/uk/documenty/10-dokumentni/199-perelik-platnih-poslug-na-2019-rik>; Nature Park Synevyr <http://www.npp-synevyr.net.ua/price.html>

PRESENCE AND ROLE OF MERCENARIES ON THE BATTLEFIELD, INCLUDING THE PARTICIPATION OF MOLDOVAN MERCENARIES IN THE WAR IN UKRAINE

Igor SOROCEANU¹

Abstract: *People are different in their way of being. Some differ according to their origin, race, spoken language, nationality, and other criteria, and others differ according to their ambitions, that is, according to their wishes and visions of the future. Some wishes or visions of the future can be obtained in a short way, but others are more difficult to obtain. Thus, in order to achieve their visions and goals, some people resort to military attacks, which turn into a battlefield. These struggles are carried out in serious violation of all the values of human society. A regrettable part of these fights is the participation of mercenaries in these illegal activities. Therefore, in the present scientific approach, we propose to analyze the participation role of mercenaries on the battlefield.*

Keywords: *battlefield, military aggression, mercenary, destruction of state property, loss of human life, etc.*

JEL Code: K 10; K 14

Introduction

At the present stage, the state of peace can be complicated quite quickly, with coexistence between peoples (groups of peoples) becoming particularly fragile on ethnic grounds, and the transition to violence becoming rapid and hard, involving large masses of people in relatively confined spaces. In the literature, war is defined as „a social-historical phenomenon that represents the sharpest manifestation of the conflicting political relations existing at a given time between large groups of people, organized from a military point of view and used to achieve certain economic and political goals, violent means, which gives this phenomenon a strong destructive character”. In the context of the general physiognomy of the war, a special interest is represented by the confrontation between the engaged forces, characterized by maximum violence, and in this vein, the author of this research is of the opinion that „each military action, big or small, has its distinct purpose, subordinated to the whole. If so, then the destruction and defeat of the adversary should be considered only as a means to an end”.

Determining the laws and principles that influence the organization, planning, and conduct of military action at all levels has been noticed in ancient times, with history providing many examples of military thinkers and commanders who have highlighted and

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successfully applied them practice. Marshal F. Foch emphasized in this regard that „the art of war, like all other arts, has its own theory and principles; otherwise it is not an art” (Debicki, 1998).

In the past, due to the decisive role of the armed confrontation between the belligerents in the wars, their essence was defined almost exclusively by their violent component (battle), the war being won or lost on the battlefield, while other areas of confrontation played a secondary role. Therefore, those who studied the phenomenon of war over time defined it relatively simplistically, only from the point of view of the violent confrontation of the armed forces of the belligerents.

1. Materials used and methods applied

In the process of developing the scientific article, we were guided by the following methods of scientific research: the analysis method, the synthesis method, the deduction method, as well as the comparative method.

The applicative material in the respective research is a relevant one formed first of all by the normative international reference framework, followed by the native provisions of the Republic of Moldova and various publicist studies that analyzed the reference subject.

2. Basic content

Considering war as a state or form of manifestation of social conflict, it can be appreciated that conflicting relations between large groups of people can manifest in a state of peace, crisis or war. So, the military action as a whole can be studied in the two main situations – peace or war. In this sense, the components of military action can be structured in different ways depending on the criteria analyzed. The logical relationship between “agent, purpose, object, means, operation, method, situation, result – on which the efficiency of the action depends – is not a static relationship”. It can take on different values, solutions and aspects, but taken as a whole, they can be useful in researching, structuring and deepening military action. The system of action determinations also remains valid in the military field. One can consider first of all the system of nomological, teleological, axiological, psychological, instrumental-operational determinations, other specific determinations that can be manifested as motivations of social action. In this sense, given the concrete content of the determinations, the image of the laws and relations of the armed struggle is relevant, but the fact that in their general form they are common, has significance for understanding military action as part of social action (Țenu & Stăncilă, 2003).

Mercenary generally means any person who undertakes to perform a specific task defined on the basis of a contract, for the payment of a fee.

The term is mainly used in the military field, to indicate a person who takes part in an armed conflict without being part of a conflicting nation or faction and who is motivated to fight only for personal gain. In this sense, mercenaries have been widely used in wars of all ages, as in the case of wealthy soldiers; Although activity in various parts of the world is

formally illegal, mercenary troops – organized by private military companies – are also commonly used in contemporary conflicts, both to support the regular armed forces and to conduct informal military operations.

The use of mercenaries was very common in the Middle Ages: for example, during this period, the quintessential mercenary militias were the so-called wealth companies, made up of wealthy soldiers. At the Byzantine court, Scandinavian warriors (Viking), known as Varangian guards, were recruited as mercenaries from the High Middle Ages, forming the chosen guard of the Eastern emperor.

It was then the Norman knights of the Drengot family who initially set out on the Lombard pay of the princes (against the incursions of the Saracens of Naples and Salerno) and then the Bari insurgents in the anti-Byzantine battles. In municipal Italy, although small groups of mercenaries were occasionally enlisted at the end of the twelfth century, it was only in the second half of the thirteenth century that their use became more and more massive. Especially since, in the second half of the 13th century, the practice of ‘replacements’ began to spread in the municipal armies, which allowed those who were selected to take part in military operations to be replaced by another person, paying it clearly. Mercenary troops were used in the Battle of Campaldino in 1289 alongside the Florentine army; the municipality of Siena also used it, stipulating contracts between 1327 and 1351 with an ante litteram leader such as Guidoriccio da Fogliano who also placed himself in charge of the scaligers. From the first decades of the 14th century, the habit of hiring mercenaries, especially knights, became more and more common. The economic wealth of Italian cities and lords and the frequent wars led to the arrival on the peninsula of groups of mercenaries from different European countries, such as France, Germany or Hungary. Along with them, there were many Italian mercenaries, especially among the infantry, not to mention the Genoese crossbowmen, in great demand in Italy and also abroad. Then came the venture companies, led by a wealth captain, who concluded real contracts with the gentlemen and leaders in question. They were widely used in Europe from the 14th century to the first half of the 17th century.

Even the medieval states used this type of troops, so much so that Niccolò Machiavelli denounced their danger in his writings (following at least the second, because Polybius had already advised their use, except for minimal quantities). The Lansquenets were the mercenary troops who carried out the Sack of Rome in 1527. Other well-known and highly regarded mercenary infantry militias were the phalanxes of the Swiss mercenaries.

In the twentieth century, especially after World War II, mercenaries were used in various conflicts, especially in the wars of third and fourth world countries. From World War II onwards and during the Cold War, mercenaries were hired, as well as to take part in armed conflicts on behalf of the directors, and to carry out coups, such as in the Congo crisis in the first half of the twentieth century. The 1960s, the Nigerian civil war, the Angolan civil war, the Benin crisis in 1977 or the Seychelles crisis in 1981.

From 1994 to 2002, the U.S. Department of Defense concluded more than 3.000 contracts with so-called US private military companies for a turnover of 100 billion euros a

year, with 15.000 people employed in missions earning up to one thousand euros a day.

There has been a further increase since the 2000s, for example during the 2003 Iraq war and also in the following years, due to their involvement in the fighting and interrogation of Abu Ghraib Prison, which became famous for denouncing torture. During the conflict, mercenaries in Iraq were the second force in the field immediately after the United States and before Great Britain. The use of mercenary troops was reported in 2011, including during the Libyan civil war and the Syrian civil war. During 2015, after the end of the Iraq war, the number of combat personnel employed in US private military companies in Iraq continued to grow.

Mercenary is a formal subject unrelated to the parties to the conflict and specifically recruited by a client (government, company or other organization) who often operates abroad. Its duties are generally established by a contract with its client, as opposed to those belonging to the ordinary armed forces, which are exclusively responsible for the home country and do not have the military status and powers, powers and legal rights. In this way, mercenaries often do not act in accordance with international humanitarian law and, if captured, do not have the protection that a prisoner of war enjoys.

In contemporary times, the services attributable to these activities are often performed by private military companies, i.e. companies that also offer consulting and specialized services, even if in many countries of the world this activity is expressly prohibited and sanctioned by law. Although mercenary activity is formally illegal in various countries around the world, mercenary troops – organized by private military companies – are also commonly used in contemporary conflicts, both in support of regular troops and in conducting war operations unofficial.

There is no commonly accepted definition of a mercenary in contemporary international law, although the distinction between a mercenary who provides services for a fee and a non-profit foreign war volunteer is quite clear.

However, at the national level, many states have special legislation for the activity of mercenaries, for example:

1. In Austria, citizens automatically lose their citizenship if they are part of the mercenary troops;
2. In Canada, the Foreign Enlistment Act of 1985 prohibits the recruitment of mercenary troops, except in specific cases;
3. In France, the penal code prohibits such activities;
4. In England, the 19th century Foreign Enlistment Act prohibits citizens from joining the troops of states in conflict with other states at peace with Britain;
5. Italy does not allow the participation of individuals, other than its own armed forces, in armed conflicts in the territory of another State, as the 1989 UN Convention was ratified by Law of 12 May 1995 n.21;
6. In the United States, the provisions of the United States Department of Defense use military force by private individuals; and it is also legal to set up and hire private military companies;

7. In South Africa, the 1998 “Foreign Military Assistance Act” makes it clear that citizens can only be part of contract troops for humanitarian missions. Following the outbreak of the Iraq war following the arrest of Mark Thatcher in connection with an attempted coup in Guatemala, legislation was amended in 2005;
8. Switzerland has not allowed mercenary activities since 1927, with the exception of the Swiss Vatican Guards (Mercenar).

Mercenaries have existed since political confrontations between states or, as in ancient Greece or Renaissance Italy, between neighboring and rival cities. Even the Romanian rulers often relied on mercenaries, something less often said in textbooks, one of them being even Mihai Viteazul. The term mercenary comes from Latin, from *merces*, which means salary or reward. In 1977, 167 states signed an additional protocol to the 1949 Geneva Convention, which sets out the rules of today's war. According to the protocol, a mercenary is not entitled to the status of fighter or prisoner of war. This, as stated in point c.) of article 47, because a mercenary, by definition and by the etymology of the term, participates in hostilities only in order to obtain a personal, financial advantage. The text establishes a series of very strict conventions by which, for example, members voluntarily enrolled in what is, for example, the French Foreign Legion cannot be considered mercenaries, because they are controlled by one state: the French state.

Serbian mercenaries, for example, fought in Donbas, in eastern Ukraine, and even participated in Crimean operations, while Chechen mercenaries are well known and highly regarded. Several countries, including France and the United Kingdom, ban their citizens from becoming mercenaries, a crime punishable by law, although decades after decolonization French and British mercenaries have been among the most popular in young African states. One of the most famous was the French mercenary Bob Denard, involved in the civil wars in Congo and Yemen, but especially in the series of coups in the Comoros, where his mercenaries also assassinated the country's president Ahmed Abdallah. Since the 2.000s, there has been a real institutionalization of private paramilitary mercenary companies, which some states have resorted to, especially with the slow disappearance of compulsory recruitment in the West and the best known is the American Blackwater, very active in Afghanistan and Iraq. The fact that that protocol to the Geneva Convention denies mercenaries the status of combatant or prisoner of war is surprising. On virtually all occasions, the Geneva Convention grants rights instead of withdrawing them. But what the Convention means is that the mercenary has only the status of a captured civilian. He must be ‘treated humanely’ but can be tried for crimes and acts of violence, unlike a soldier who applied the rules of war. In the event of a conviction, the mercenary can be considered a mere murderer, which a prisoner of war will never be if he has not voluntarily committed crimes against humanity. The mercenary may even be sentenced to death in countries that still have this punishment, but a simple military man – no.

Mercenaries are criminally punished in the Republic of Moldova. The mercenary is defined in the Criminal Code as a person specially recruited, in the country or abroad, to fight in an armed conflict in exchange for remuneration. He is not a citizen of the party to

the conflict or resident in the territory controlled by one party to the conflict. He is not sent by a state on an official military mission. Until 2013, the participation of the mercenary in an armed conflict was punished as severely as the activity of those who hire, train or finance the mercenaries. The sentence was up to 15 years in prison. As a result of amendments to the Criminal Code, the penalties for both types of offenses have been reduced. Currently, a mercenary can be punished with a maximum of 7 years in prison. Those who hire or finance them risk 3 years more. The phenomenon has spread in the Republic of Moldova especially after the outbreak of the war in eastern Ukraine in 2014. A recent investigation carried out by the RISE Moldova investigative journalists' community says that, according to Intelligence and Security Service data, about 100 Moldovan citizens were allegedly mercenaries in the trenches of pro-Russian separatists in Donbas and Luhansk. Intelligence and Security Service has so far identified 47 mercenaries, 17 have been detained and 12 have been convicted. Some of the mercenaries who were identified were not detained simply because they did not return to the country. Connoisseurs do not rule out that they are among those in the country, but they have not been identified yet.

Former Deputy Minister of Interior of the Republic of Moldova, Ghenadie Cosovan, believes that national legislation should be improved. Currently, all those who end up on the dock, whether they admit or not that they have committed murders, are being investigated on the basis of the same article in the Criminal Code:

„Mercenary is seen in legislation simply as the enlistment of citizens in conflict zones. Or I would complete this article with other desertions, such as the use of firearms against citizens, participation in genocide. Participating in other mercenary-related crimes, such as homicides. Only through these methods will we prove that the mercenary is to carry a submachine gun, but that it provides that you must comply with the illegal instructions of the separatist, paramilitary forces in order to destroy the citizens” (Alexe & Ceapai, 2018).

Cosovan suggests that mercenaries should be punished more severely than required by law. What's more, half of those who have already reached the dock have been suspended, meaning they are at large because they have pleaded guilty in court. According to his opinion, they pose an imminent danger, including to the security of the Republic of Moldova and the Moldovan authorities should cooperate with the Ukrainian authorities in the investigation of the mercenaries, because in Ukraine the crimes committed by them are considered not only mercenary but also terrorist activities, being punished with years of imprisonment or even detention. for life. Official figures show that half of Moldovan mercenaries are from the Transnistrian region, which has been reported to be a “mercenary factory”. However, the constitutional authorities cannot intervene, as they do not have de facto control over this separatist region (Alexe & Ceapai, 2018).

In other words, we are also studying the essence of Swiss mercenaries. These were troops of Swiss infantry mercenaries fighting for compensation in favor of foreign lords and potential. They appeared in the Middle Ages and functioned, in a more or less

organized way, until the sixteenth century, when with the advent of nation-states, their use began to decline in favor of the regular armed forces. Their work changed the way they fought; their formations, at first simple and primitive, then evolved into a square phalanx, revolutionized the techniques of warfare, and, together with firearms, marked the defeat of the medieval knight and cavalry as the supreme weapon.

The reason why the mercenaries developed especially in the Swiss mountain cantons is to be found in their great poverty. The only available resource, apart from poor agriculture, was emigration, and this practically meant providing military services abroad for a salary. This emigration was also favored by the type of economic activities carried out due to the orographic conformation of most of the cantons of origin. The mountainous territory only allowed growth and shepherding if the direct presence of the shepherd or breeder could be managed more easily than in agriculture itself and where they could be replaced by women, boys and the elderly, but also by the neighborhood solidarity. In this socio-economic scenario “leaving widows and orphans was not a great tragedy”. The Swiss mercenaries had already manifested themselves in the thirteenth and fourteenth centuries, in the Hundred Years' War (337-1453), which stood out for the courage and ferocity which, combined with the impulse of the attacks, gave it international fame, series of victories by the Swiss cantons (especially at the Battle of Morgarten and Morat) gave continental fame to Swiss troops, which began to be demanded by the other powers, and in the 15th and 16th centuries the phenomenon took on greater proportions. It is therefore up to them to authorize the recruitment of this particular type of emigrant, whose social base consisted mainly of climbers but also members of the local nobility, acting as intermediaries with the communities. The cantons received compensation for this, but more importantly, they gained diplomatic visibility and value, which soon became effective. From this point of view, we can read the agreements, today we would say about the military assistance, from 1474 with Louis XI of France and other potentials.

In 1444, the Swiss were at war with Sigismund of Austria, an ally of French King Charles VII, who sent Dauphin (the future Louis XI) to his aid. During the battle of San Giacomo sul Sihl, the Swiss were annihilated, but the Dauphin managed to establish his excellent military qualities and thus concluded an alliance and a trade agreement with the Swiss states in 1444, renewed by Charles VII in 1453 and again by himself in 1463, considering it an excellent thing to keep your friends with that people. The Swiss did not keep the pact with the French king, and in 1465 they opted to join the League of the Public Good led by the Burgundian Charles the Bold. Louis XI then reconciled with the mercenaries by offering them a mutual defense agreement from the Duke of Burgundy, pledging to pay 20.000 francs annually in the cantonment box and granting other trade privileges, but being able to recruit soldiers in Switzerland instead. The daring Carol did not forgive the change in front of the mercenaries by declaring war on them, but he was strongly defeated in Nephew, Morat (1476) and finally in Nancy (1477) where he lost his life.

In the service and against the French kings. The three final battles of the Burgundian wars strengthened the image of Swiss mercenaries as excellent fighters. Louis

XI employed 6.000 (led by William de Diesbach) in 1480 to train his army in maneuvering operations on a simulated battlefield in Normandy, and on his departure, he requested and obtained permission to use one of their bodyguard companies (15 years) will later change their name to Cent-Suisses). When Charles VIII of France started the Italian War of 1494-1498 to assert the rights of the Angevins over the Kingdom of Naples, more than 25.000 Swiss mercenaries fought in his army, most notably in the Battle of Fornovo (1495). Louis XII reduced his number to 9.000 by entering into a ten-year contract with them; they used their aid during the Italian war of 1499-1504, conquering the Duchy of Milan and clashing with the Republic of Genoa, even though they refused to fight the latter, as the engagement contract contained only battles on the plain. These clauses thanked the Swiss mercenaries who came to establish a set of rules for the future: no fighting against other Swiss troops (the rule is not always respected), overseas, across the Rhine or south of the Pyrenees.

Relations with Louis XII continued until the French king refused to increase the compensation to the canton of Grisons. The Swiss joined the Holy League, inspired by Pope Julius II, and opposed Louis XII's successor, Francis I, who, however, severely defeated them at the Battle of Marignano (1515). From this battle, the military power of the Swiss, who "appeared for a moment the only potential capable of dominating northern Italy by imposing itself on both France and the Empire", was compromised. With the Peace of Friborg (November 29, 1516) and a substantial remuneration, Francis I brought him the Swiss cantons and their mercenaries who would no longer take up arms against France. In the Battle of Bicocca, along with the French commanded by Odet de Foix (1485-1528), the Swiss mercenaries were bloodthirsty and defeated by the Spanish arquebusiers: four rows of a *thousand arquebusiers* fired alternately to give themselves time to reload. The weapon, constituting a deadly and winning wall of fire. Even in the battle of Pavia they failed to prevent the capture of their "employer". Henry II of France renewed relations in 1516 with the possibility of enlisting no less than 6.000 and no more than 16.000 mercenaries, unless he himself commanded the army. During the French religious wars, they supported both the monarchists, playing a key role in the battle of Dreux, and the Huguenots (without the authorization of the cantons). A small contingent, later massacred by insurgents, served as Louis XVI's bodyguard during the assault on the Tuileries as part of the French Revolution. Service to the kings of France continued until the fall of Louis-Philippe of France, the last of the Bourbons in 1848.

Reducing the phenomenon. Swiss mercenaries characterized the European wars of the fifteenth and sixteenth centuries with their presence and their fighting technique has long been considered exemplary. However, with the perfection of infantry tactics, the evolution of artillery to sufficiently mobile parts, the introduction of cast iron shells which, fitting perfectly with the barrels of cannons, allowed a more precise shot and greater autonomy, and finally with the increasingly improved use of the *arquebus*, but above all the rise of states and national armies has led to a gradual reduction in their activity. Moreover, in the 15th century, new groups of mercenaries appeared and began to oppose ruthless competition to the Swiss, such as the above-mentioned *lansquenets*. The more

agile formation of the Spanish *tercio*, well equipped with shooters and better disposed on the ground, and the modern tactics of the Dutch, such as those of Maurice of Nassau, limited the spread of the Swiss mercenary. The development of permanent armies and the need for motivated and reliable troops have finally put an end to the season of Swiss mercenaries. Until 1860 at least one regiment served in the Kingdom of the Two Sicilies. Their last followers are the current Swiss guardians of the Vatican.

Conduct and discipline. The call for arms in the canton has always been widespread and has led to the formation of much larger armies compared to those in other countries and much more motivated, because the Swiss, accustomed to fighting for liberation from foreign domination, had to do this and to survive. Another peculiarity was the fact that the commanders, often from the same villages, fought among their people, with whom they had a habit of direct and personal life, participating in their risks and problems, thus developing a strong spirit, absent body in the other formations. They often distinguished themselves by their military prowess and determination on the battlefields, but also by their cohesion and loyalty to their leaders. In battle they were formidable and ferocious opponents, very often victorious, and for this reason they began to be sought by foreign sovereigns and princes.

Training. The Swiss mercenaries fought in the massive square, which attracted the Greek phalanx, armed with knowledge, opposing like hedgehogs the attacks of the cavalry that nothing could: only Francesco Bussone said that ‘Carmagnola’, under the command of Visconti troops, he gave her a bloody lesson in Bellinzona, getting the riders off their horses, and facing them in a melee victory. A formation consists of 3-4.000 people armed with a pike about five and a half meters high and arranged to form a compact and tight square. It sometimes happened that the painting was in the shape of a rectangle over a triangle, as was the case with Morat in 1476. During this battle, the ‘hedgehogs’ demonstrated excellent maneuverability, completing the encirclement of enemy lines at high speed and marching, to escape the artillery fire.

Engagement. The commanders, mostly small nobles or fallen feudal lords, belonging to what some would call feudal garbage, fought with their troops and won or died with them. The Swiss were devoted and brave as long as they were paid, paying attention to money and prey, far from political ambitions, but they quickly abandoned their client if the money was delayed: *Pas d'argent pas de Suisses* (no money, no Swiss). They did not bind themselves in any way to the sovereign or prince they served, but once the military campaign was over, they returned to their own country. They were serious and punctual professionals, inflexible in granting, but equally inflexible in terms of due diligence; they became a human and military stereotype not only for their distant national heirs, but also for their contemporaries who were inspired by them, such as the German Landsknechte whose presence on the battlefields was often decisive. They belonged to that motley world of mercenaries who did not fight *pro aris et focis* and who could make a victorious war campaign laden with riches. Against them and the mercenaries in general, the voice of Niccolò Machiavelli rose and, with great acrimony, placed them at the root of the misfortunes in Italy. The writer's attacks were mainly due to the infidelity shown when payments began to be delayed or when the war

campaign proved less fruitful than expected.

Their arrival marked the end of the medieval war, characterized by a lack of blood, numerical limitation of armies and the domination of feudal cavalry and the beginning of modern warfare, characterized by large bloodbaths, lack of mercy for the enemy and the spread of mercenaries. “Compared to the pathos of the cavalry war – where people shouted, the signs waved, sang, laughed, cried, offended, but practically died less – the Swiss „hedgehog” was an image of gloomy, impassive, inexorable ferocity” (Swiss mercenaries).

International humanitarian law on armed conflict is the set of rules of international law, of customary or conventional origin, intended to regulate in particular the problems that have arisen in situations of international and non-international armed conflict. Thus, international humanitarian law has its own tools, and among the main of these components we can mention the following: 1868 – Declaration of St. Petersburg, 1899 – Hague Conventions, 1949 – Geneva Conventions, 1954 – Convention for the Protection of Cultural Property, 1972 – Convention on the Use of Bacteriological Weapons, 1977 – Additional Protocols to the 1949 Geneva Conventions, 1980 – Weapons Convention Conventional and Additional Protocols, 1989 – Convention on Mercenaries, 1993 – Chemical Weapons Convention, 1995 – Laser Weapons Protocol for Blinding, 1997 – Anti-Personnel Mines Convention, 1998 – Statute of the International Criminal Court, 2002 – Entry into force of the in Rome establishing the first permanent international criminal tribunal, 2008 – Convention on Defragmentation Bombs (Exploring humanitarian law).

Clashes in late 1991 between Moldovan police and paramilitary forces in the Tiraspol regime intensified in Tiraspol, Tighina and Dubasari. They were concentrated, especially near the police stations, judges, prosecutors, where, according to the Chisinau press, at first the protesters led by ‘the famous Galina Andreeva’ entered the scene, being later helped by detachments of guards, Cossacks, mercenaries, and other self-proclaimed supporters of the republic.

On the night of March 1 to 2, a statement from the Chisinau government, published by several newspapers, stated that paramilitary forces, opening fire from submachine guns, occupied the headquarters of the Dubasari Police Station. 32 policemen were taken hostage, “at around 5 in the morning, on all the bridges and on all the roads on the left bank of the Dniester, guard and Cossack posts were installed, equipped with armored personnel carriers” (Basiul, 2016).

On March 2, the clash moved to Cocieri, where there was a unit of the former Soviet army. Both supporters of Smirnov's republic and locals who supported the Chisinau authorities took weapons from the depots of this unit. There were deaths and injuries in both camps. „In order to restore public order”, the locals called for help from the special purpose police brigade, the daily parliament of the „Country Council” reported. March 2 is considered the beginning of the Dniester war in Chisinau. Within a few days, military hostilities spread to other localities. The bridges from Dubăsari (Lunga), Gura Bâcului and the one from Vadul lui Vodă were blown up. On March 28, the state of emergency is declared throughout the country. Along with the fighting, the Moldovan army was also marching (Basiul, 2016).

The armed conflict at the crossroads of Ukraine between East and West has drawn Moldovan mercenaries to the war in the Donbas region. For money, they have become pawns in the trenches that force the red line on the political map of the world.

Thus, in the following order, we propose to pay attention to some case studies on the participation of Moldovan mercenaries in the war in Ukraine:

1. V.C., 35 years old, resident of Cimișlia. In early 2015, V.C. went to war in Ukraine. For this, he was sentenced to three and a half years in prison, with a conditional suspension for a period of two years. V.C., a mercenary, claims that: „It takes him five seconds to kill a man. She can kill him with her fingers. He never looks her in the eye. You don't have to look the sacrifices in the eye. We are mercenaries and for us this is a service. We wear masks, we don't spare anyone. It doesn't matter who he is”. V.C. made the decision to leave for Ukraine drunk. He was in the town of Basarabeasca with some friends by the glass – Zaiat and Hamiak. There, he slipped into the hands of the pickers. He went to war the same evening, without travel documents. One of those who made him an offer helped him get out of Moldova. He was an employee of the State Railway Company of Moldova. V.C. was a retired soldier in an armed party in the self-proclaimed Luhansk People's Republic. V.C. also mentions that *”They paid us 1.000 hryvnia and that's it. For the idea and for the people. You don't have to go there. It's their country, let them find out. I'm so sorry for everything. But most of all, I'm not dead there. Someone was left without parents, children, grandchildren because of me. I regret everything. Why did I have to go there?”*;

2. R.C., alias „Tiger”, is 26 years old. He was sentenced to three years in prison for mercenary. Documents obtained by RISE Moldova show that in Ukraine, R.C. allegedly killed more than 50 people. For his involvement in the war he was remunerated, monthly, with 40.000 Russian rubles, which then meant about 750 euros. R.C. was part of the „Fulger” Special Purpose Battalion. In the area controlled by the separatists from eastern Ukraine, he arrived in May 2014, on a difficult itinerary. From Moldova he traveled to Romania, then through Bulgaria, Turkey and Georgia he arrived in the Russian Federation. From there it entered the separatist region of South Ossetia. After that he returned to the Russian Federation and, through the field, from the Matveev Kurgan region, he crossed the border with Ukraine. In July 2015, he decided to return home because his mercenary contract had expired, which usually lasted for three months. However, in the city of Rostov in the Russian Federation he was detained by the Russian special services, then deported to Moldova;

3. I.U., only 23 years old, was also sentenced to two and a half years in prison for mercenary activity. Ion and I met in the penitentiary. He told us that he had been in Donetsk for almost half a year, from February to June 2015. There he did not go to fight, but to save his younger brother, recruited in Moscow and sneaked into Ukraine, in the controlled area. of separatists. He found his brother, but they could not leave. The separatists took their passports and offered them to be soldiers on the “Vostok” detachment. I.U., mercenary: We accepted their offer to remain as soldiers and to fight for them for a salary of 15.000 rubles just for the purpose of recovering their passports;

4. A.S. left Transnistria for Moscow, and from there to Donetsk. He enlisted in the

Sparta military group. Andrei's mission was to identify conspiracy groups and bombard the streets with grenade launchers. A.S., mercenary:

„I declare responsibly that no one promised me and did not give me money. My participation in the conflict had a strictly principled anti-fascist position. I was taught to protect the weak from childhood. In this situation, I could not have done otherwise. And apart from the word thank you on the territory of Ukraine, of the Donetsk People's Republic, I have not heard anything else. I'm not a mercenary” (Sanduța & Șevciuc, 2018).

The concept of mercenary experienced a normative enlightenment in the legislation of the Republic of Moldova at the beginning of the last decade, with the adoption of the Criminal Code no.985 of 18.04.2002 and later being published in the Official Gazette of the Republic of Moldova no.

Thus, in Article 130 with the marginal name *Mercenary* from the normative limits of Chapter XIII with the title “*The meaning of some terms or expressions*” of the Criminal Law mentioned above, the legislator provides a generic explanation of the subject under analysis.

Under these conditions, “mercenary means a person who works in the territory of a state involved in an armed conflict or military action, for the purpose of receiving a material reward, not being a citizen of that state, not having a permanent residence in its territory and not being empowered, with the execution of official obligations” (Criminal Code of the Republic of Moldova. 2002).

Currently, the terminology of the *mercenary* concept established in the Criminal Law of the Republic of Moldova has the following approach.

According to art.130 CPRM, „mercenary means a person specially recruited, in the country or abroad, to fight in an armed conflict, who takes part in military operations in order to obtain a personal advantage or a remuneration promised by a party to the conflict or on its behalf, who is neither a citizen of the party to the conflict nor a resident of the territory controlled by a party to the conflict, is not a member of the armed forces of a party to the conflict and has not been sent by a state, other than the party to the conflict, in an official mission as a member of the armed forces of that state” (Criminal Code of the Republic of Moldova, 2002).

On 10 June 1977, the Protocol no.1 to the Geneva Conventions of 12 August 1949 on the Protection of Victims of International Armed Conflicts entered into force as a legal force, and within the limits of this international act, the High Contracting Parties expressly provided that terminological definition of the concept of *mercenary*.

Thus, the term *mercenary* means any person:

1. who is specially recruited in the country or abroad to fight in an armed conflict;
2. who, in fact, takes part in hostilities;
3. who takes part in hostilities in particular in order to obtain a personal advantage and who is actually promised, by or in the name of the party to the conflict, a higher remuneration than that promised or paid to combatants

- having a similar rank and function in the forces armies of this party;
4. who is neither a national of a party to the conflict nor a resident of the territory controlled by a party to the conflict;
 5. who is not a member of the armed forces of a party to the conflict;
 6. who has not been sent by a State other than a Party to the conflict on an official mission as a member of the armed forces of that State. At the same time, the High Contracting Parties to Additional Protocol no.1 to the Geneva Conventions of 12 August 1949 on the Protection of Victims of International Armed Conflicts also provided that a mercenary was not entitled to combatant status or a prisoner of war (Additional Protocol no.1 of 10 June 1977 to the Geneva Conventions).

Therefore, we can conclude that the practice of the activity of mercenaries is prohibited and liable to criminal liability.

Article 141 of the Criminal Code of the Republic of Moldova contains two typical variants of prosecuting the subject of the act of mercenary, these being the following:

1. the participation of the mercenary in an armed conflict or in military actions – under the conditions of art.141 paragraph (1) – Criminal Code of the Republic of Moldova of 2002, at 5 to 15 years;
2. the employment, training, financing or other insurance of mercenaries, as well as their use in an armed conflict or in military actions – according to art.141 paragraph (2) – Criminal Code of the Republic of Moldova of 2002. Punishment for such iniquity, during the beginning of the last decade being identical to the one provided in art.141 paragraph (1), ie the subject of the respective-typical variant, also being liable to imprisonment for a period of 5 to 15 years (Criminal Code of the Republic of Moldova, 2002).

In the criminal legislation of Ukraine, the reporting of the activity of mercenaries is established in art.447. In accordance with the text of the law of that rule specified in Section 20, Crimes against Peace, Security of Mankind, International Law and Order, mercenary actions are mentioned in five articles (The Criminal Code of Ukraine, 2018).

The tense situation in Ukraine resulted in the separation of Donetsk province from the Donbas region, which until 2014 were a whole. Therefore, once it became de facto independent, the Donetsk People's Republic adopted its own criminal law, which in art.421 elucidates the criminal liability regarding the activity of mercenaries (The Criminal Code of the Donetsk People's Republic, 2014). This fact, regarding the application of criminal liability in the Donetsk region, refers to the actions of recruitment, training, financing, support, use and direct participation of mercenaries in armed conflicts.

Conclusion

The activity of mercenaries, as an illegal act, dates back to ancient times. During the last century, mercenaries were used in various wars, armed conflicts, „special operations” and others. Since the Second World War and during the Cold War, mercenaries have been

employed as well to participate in armed conflicts on behalf of the principals, and to carry out coups, as for example in the Congo crisis in the first half of the sixties, the civil war in Nigeria, the civil war in Angola, the Benin crisis in 1977 or the Seychelles in 1981.

The mercenary, as a natural person, is a special individual, recruited in a special way, who is not a citizen of any of the parties involved in the conflict. Their mission is established by the people who recruited them, through an unofficial contract, after which the mercenary is offered a financial remuneration. At the present time, this activity is often carried out by private military companies, i.e. companies that also offer consultancy and specialized services, even though in many countries of the world this activity is expressly prohibited and sanctioned by law. In this chapter, we can mention that both the Criminal Code of the Republic of Moldova and the Criminal Code of Ukraine expressly regulate the crime of mercenary activity. But, not looking for this fact, some people show the desire to continue to practice this illegality, manifested through the activity of mercenaries.

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GRAVITY MODEL APPROACH FOR EXPORTS ANALYSIS OF REPUBLIC OF MOLDOVA BETWEEN 2010 AND 2021

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Abstract: *This paper explores the effects of determinants of bilateral trade on export flows of Republic of Moldova during last decade in the framework of gravity model. Being a structural model with solid theoretical foundations it proves that markets are linked and changes in one partner country can cause changes in trade performance of another partner country. The variables include trade partner's GDP, economic distance, and Association Agreement membership. Specifically, the model relies on a fixed effect panel estimation for explaining the export flows of the Republic of Moldova. In order to check the viability of the gravity equation, there are executed statistical tests. Based on the analysis, there are provided policy recommendations for trade policy.*

Keywords: *gravity model, panel data, Republic of Moldova, export, Association Agreement*

JEL Code: *F17*

Introduction

Quantitative and detailed information of trade flows is necessary at different stages of the policy-making process. In recent years, trade as a part of globalization process has become increasingly contractionary and having detailed and reliable analysis of factors influencing external trade is crucially important. Gravity model has been one of the main methods for analyzing international trade flows for many years. It is also considered to be one of the most widely used and effective economic applications in economics. There are several arguments that explain the success and popularity of this approach, provided by researchers:

The gravity model represents a realistic general equilibrium environment that simultaneously accommodates multiple countries, multiple sectors, and even firms. As such, the gravity framework can be used to capture the possibility that markets are linked and that trade policy changes in one market will trigger ripple effects in the rest of the world. (Yoto et al., 2016)

Forecasting ability is considered to be one of the most advantageous features of the gravity model. Empirical gravity equations of trade flows permanently ensure matching between 60 and 90 percent with summary data for both goods and services.

Gravity model is viable because countries with high economic growth are disposed to spend large amounts on imported goods and services using their great incomes. Simultaneously they also occupy a large share of other countries' imports because they produce a wide range of products. So, other things equal, the higher is GDP of every country involved in trade, the larger is the trade between these countries.

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World Bank Group defines Moldova as a small lower-middle-income economy. Economic growth and prospects are related to its performance in international and regional markets. Strong reliance on the exports of a few commodities and high concentration of trade flows in previous years has generated vulnerability towards changing external economic conditions. Recently Moldova's economy has been crucially affected by the affairs in Russian Federation, that had been one of the largest export destinations for Moldova for a long time. During the last decade took place intensification of economic relationships with the European Union (EU). Legal framework for this phenomenon is Deep and Comprehensive Free Trade Agreement (DCFTA) as part of the Association Agreement signed in 2014. This is one of the reasons that provided increasing economic linkages with European region.

Influence of economic performance of partner countries and possible effects of Association Agreement calls for an assessment of trade performance through a gravity model. In other words, the aim of this paper is to estimate the influence on Moldova's export performance of the following trade determinants: "economic distance" to export-destination countries, economic growth of trade partners and of Association Agreement, that is considered major trade policy implication of the last decade. All these variables are estimated through gravity model, that is considered a suitable option to fulfill this task. (Goschin, 2016)

1. Literature review

One of the first attempts to explain the phenomenon of growth in international trade after World War II was the similarity theory of countries by Stefan Linder, who in 1961 published his essay on trade and transformation. After analyzing the changes in international trade, Linder came to the conclusion that international trade in manufactured goods occurs as a result of the similarity of consumer preferences from different countries at the same level of economic development. According to the Swedish economist, companies, when looking for new opportunities to sell their products, find that the most promising foreign markets are the markets of those countries in which the preferences of buyers are similar to the needs and demands of domestic consumers. (Linder, 1961)

After Linder's work and up to the present day, a number of new theories have been published explaining the volume and characteristics of bilateral trade between countries.

Economists often estimate a general gravity model of the following form:

$$Trade\ Flows_{it} = \beta_0 * \frac{GDP_i^{\beta_1} * GDP_t^{\beta_2}}{D_{ij}} \quad (1)$$

This equation says that the three things that determine the volume of trade between two countries are the size of the two countries' GDPs and the distance between the countries, assuming that trade is proportional to the product of the two GDPs and inversely proportional to distance, where β_0 , β_1 , β_2 are chosen to fit the actual data as closely as possible.

Estimated gravity models show a powerful negative influence of distance on international trade. This decline reveals increased costs of logistics. Researchers have

calculated that a “1 percent increase in the distance between two countries is associated with a fall of 0.7 to 1 percent in the trade between those countries.” (Krugman, 1979)

There are other factors that can significantly affect trade: personal contact, cultural affinity, trade agreements. For example, elaborated based on the gravity model shows, that the United States register larger trade flows with its neighbors than it does with European countries of the same size. Gravity models are used by economists as a technique of evaluating the influence of trade agreements on actual international trade: if a trade agreement is effective, it should lead to significantly more trade among its partners than one would otherwise predict given their GDPs and distances from one another. It is common, that trade agreements imply cancellation of all formal barriers to trade between countries, nevertheless, their national borders do not become insignificant. As a consequence, there is much more trade between regions of the same country than between equivalently situated regions in different countries.

This phenomenon can be illustrated on the example of Canadian–U.S. border. Both countries are parts of a free trade agreement, they have common English language and a minimum of formalities while crossing the border for citizens of either country. Nevertheless, trade statistics shows that there is much more trade between provinces than between provinces and U.S. states. (Krugman, 1991, p. 142)

In the 1980s American economists Krugman and Lancaster explored new theoretical principles for describing laws of international trade. They argued that companies can obtain sustainable competitive advantages through investment in research and development, intellectual property rights, economies of scale and opportunities provided by their experience. The most important component of Krugman's work was the concept of increasing returns, assuming that a proportional increase in all factors of production leads to an increase in the output of the product. “It shows that trade need not be a result of international differences in technology or factor endowments. Instead, trade may simply be a way of extending the market and allowing exploitation of scale economies, with the effects of trade being similar to those of labor force growth and regional agglomeration.” (Krugman, Obstfeld & Melitz, 2012).

As a result, P. Krugman came to conclusions that are similar to Linder's theory. Krugman proved that countries trade similar goods with each other due to lowering barriers of international trade. This contributes to the appearance of competition between companies from different countries. At the same time, “this model was created on the analysis of trade among developed industrial countries with each other, and he repeatedly emphasized that his theories are of little use to trade between developed and developing countries.” (Smirnov, 2020, p 53).

In addition to these fundamental theories of trade, modern science uses an econometric approach to study international trade. The econometric tools of gravity modeling have been significantly enriched in recent decades due to the accumulation of large amounts of information on bilateral trade relations between countries, the

development of computer technology. Also, theoretically explained modifications were applied to gravity equation.

A variable, named “multilateral resistance”, which characterizes the average value of barriers to trade with all other trading partners under consideration, underlying importance of facilitation of trade was introduced by Anderson (1979).

Additional explanatory variables like transport costs, the influence of natural and political boundaries, membership in monetary and trade unions, and many other factors have been recently introduced in the gravity model. All these studies were systematized completely by Anderson and van Winkoop (2004).

2. Geographic structure and dynamics of trade flows of Republic of Moldova during 2010 and 2021

For better assessment of variables and understanding of the current situation of external trade of the Republic of Moldova, author consider it necessary to make a preliminary analysis of Republic of Moldova trade flows based on statistical data.

In 2021, merchandise exports totaled 3144.4 million US dollars, a value higher by 27.5% compared to that recorded in 2020. Exports of goods destined for the countries of the European Union (EU-27), in 2021, totaled 1919.4 million US dollars (17.0% more compared to 2020), holding a share of 60% in total exports

In 2021, the main destination countries of goods exports, which held 89.7% of total exports, were: Romania (26.5% of total exports), Turkey (10.0%), Russian Federation (8.8%), Germany (7.8%), Italy (7.6%), Switzerland (3.8%), Poland (3.5%), Ukraine (3.0%). (Figure 1).

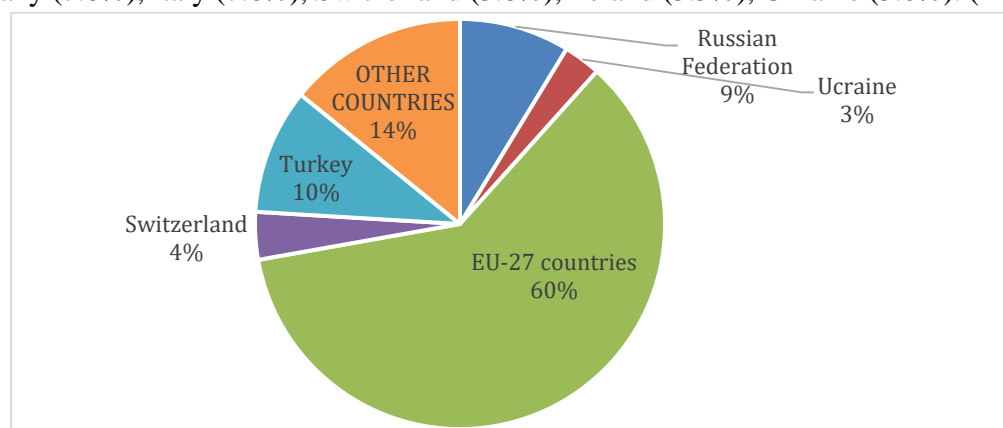


Figure 1. Structure of exports of Republic of Moldova per countries and geographical destinations in 2021, in per cent.

Source: Author's elaborations, based on data of National Bureau of Statistics (2022).

In recent decade, Moldova has progressively decreased its traditional export dependence on the Russian market. The share of Moldovan exports going to Russian Federation dropped from 28,2% percent in 2011 to 8,8% in 2021. Especially it marked a sharp decrease by 40% after signing the Association Agreement between European Union and Republic of Moldova and due to tariff and non-tariff measures that were imposed .

Share of exports to Ukraine also decreased roughly from 7% in 2010 to 3% in 2021 mostly due to military conflict in the East of the country. (Table 1)

At the moment, Romania holds 1st place as geographic destination of exports. Indeed, exports to Romania grew in 2.2 times during last decade. Moldovan exports to Turkey expanded significantly. In fact, Turkey receives 10 percent of exports, becoming the second most important market.

Table 1. Share of partner countries in total exports of Republic of Moldova in evolution

Country/ year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Russian Federation	28,2%	30,3%	26,0%	18,1%	12,2%	11,4%	10,5%	8,1%	9,0%	8,8%	8,8%
Ukraine	6,9%	5,7%	5,8%	4,7%	2,3%	2,4%	2,7%	3,0%	2,9%	2,8%	3,0%
Germany	4,8%	3,2%	4,7%	5,9%	6,0%	6,2%	6,9%	8,1%	8,9%	9,1%	7,8%
Italy	9,7%	9,4%	7,6%	10,4%	10,0%	9,7%	9,7%	11,4%	9,6%	8,7%	7,6%
Poland	3,9%	3,4%	3,5%	2,8%	3,5%	3,6%	4,2%	3,6%	4,1%	4,4%	3,5%
Romania	17,0%	16,5%	16,9%	18,6%	22,7%	25,1%	24,8%	29,3%	27,5%	28,6%	26,5%
Turkey	3,3%	2,6%	5,2%	4,5%	3,3%	3,0%	4,3%	4,0%	6,3%	7,0%	10,0%

Source: Author's calculation based on data of National Bureau of statistics (2022) and National Bank of Moldova (2020).

Taking into consideration trade in evolution, we observe decreasing export trade flows with Russian Federation and markable increasing with Romania. (Figure 2)

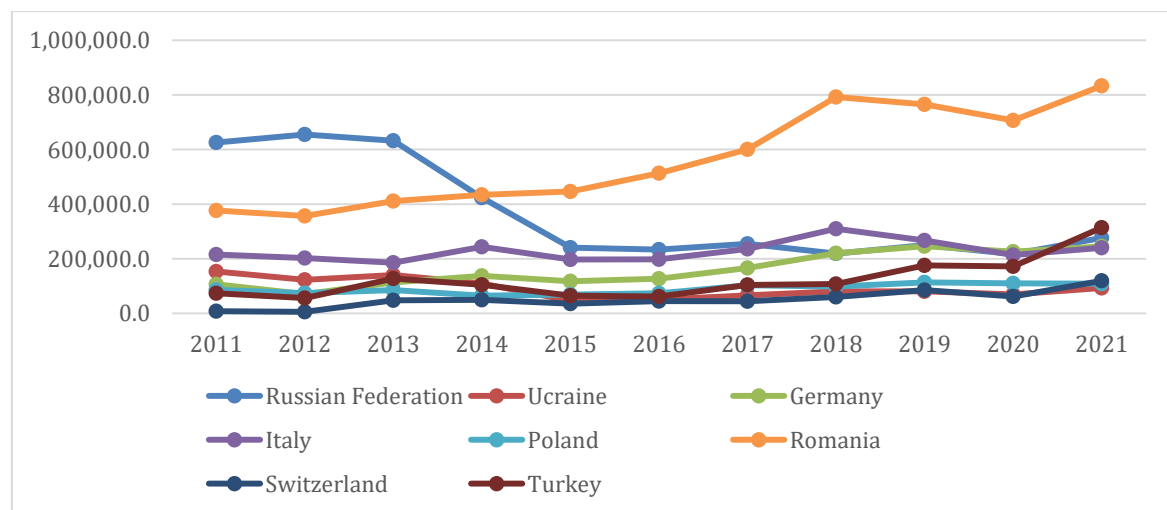


Figure 2. Exports Evolution of Republic of Moldova with major partners from 2011 to 2021, thousand dollars.

Source: Author's calculations based on data of National Bureau of Statistics (2022).

So, in this context, the DCFTA follows the natural trends of intensifying trade relations between the European Union and the Republic of Moldova in recent years, because traditionally, free trade zones are established between trade partners that show both desire and capabilities to develop bilateral trade. Thus, the removal of barriers to export and import with the main trading partner will obviously contribute to the further intensification of trade

and economic relations between both parties. The increase in the importance of the European Union market is also reflected in the structure of exports by product.

3. The Model and Findings

Equation (2), representing the theoretical gravity equation that governs bilateral trade flows, consists of 3 variables. The selection of explanatory variables is based on the international literature, in the context of the current data availability limitations.

Based on classical model of gravity we transformed (model 1) in

$$EXPORT = \beta_0 * \frac{GDP_CAP_PPP^{\beta_1} * AT^{\beta_3}}{DIST_EC^{\beta_2}} \quad (2)$$

In order to estimate the previous equation, relation (2) is transformed into a log-log pool model by taking logarithms of both its sides:

$$\ln EXPORT_{it} = \ln \beta_0 + \beta_1 * \ln GDP_CAP_PPP_{it} + \beta_2 \ln Dist_EC_{it} + \beta_3 AT_{it} \quad (3)$$

where β_1 , β_2 and β_3 are elasticities. β_0 is an intercept

“The panel data structure enables to account for specific period on the basis of panel model with the fixed-effects”. (Baltagi, 2005, p.12-14)

The model specification in (3) changes accordingly:

$$\ln EXPORT_{it} = \beta_{0i} + \gamma_t + \beta_1 \ln GDP_CAP_PPP_{it} + \beta_2 \ln Dist_EC_{it} + \beta_3 AT_{it} + \varepsilon_{it} \quad (4)$$

i – country; there are 18 partner countries taken for analysis, that’s why i range is 1..18;
 t – year, sample consists of values taken from 2010 to 2021, meaning that observation period is 11 years.

γ_t represents period fixed effects such as general shifts in business cycle, economic crises, new technology, etc.) that affect all countries in a similar manner.

β_{0i} reflects cross-section fixed effects (country characteristics that are constant over the period of interest: territory, climate, customs; economic policy)

Accuracy of fixed effects’ model is confirmed by checking for the absence of individual effects through Fisher test application.

The null hypothesis of the test is $H_0: \beta_{0i} = 0, i=1, \dots, N$, which implies the absence of individual effects and recommends pool, while the alternative is the fixed effects model. Given test shows the value of F statistic=64,84. In this case, the null hypothesis is rejected, meaning that there are no effects at the 1% significance level.

Table 2 . Description of variables used for research

<i>Variable name</i>	<i>Description</i>	<i>Data source</i>
<i>Export</i>	<i>The value of export flow from Republic of Moldova to each partner country (total 18 partners), thousand dollars.</i>	<i>National Bureau of statistics</i>
<i>GDP_CAP_PPP</i>	<i>represents GDP per capita of each trade partner, purchasing parity power, USD, dated 2017.</i>	<i>World Bank database</i>
<i>DIST_EC</i>	<i>is an “economic distance” that is computed as distance between capital of Moldova and capital of the trade partner country divided by the share of the partner-country in world GDP.</i>	<i>Google map and World Bank</i>
<i>AT</i>	<i>Dummy variable taking the value 1 from the 2014, when the Association Agreement (AA) has been signed</i>	<i>Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Moldova, of the other part</i>

Source: author’s calculations

If the panel data model proves to be appropriate for the dataset chosen, then there are two options to choose: the fixed effects (FE) and random effects (RE) model. The problem is solved by applying the Hausman test. For the case of panel data, the null hypothesis of the test implies that FE and RE estimators do not differ significantly. (Baier & Bergstrand, 2009).

The test implemented rejects the null hypothesis, meaning that random effects cannot not be used because they may be correlated with the independent variables in the model. The variables of the models are presented in Table 3.

This model is verified using statistical tests. The data used for estimating the models cover the period 2010 to 2021 and include 18 countries: Belarus, Bulgaria, Switzerland, Russian Federation, Greece, Ukraine, Germany, Italy, Poland, Check Republic, Spain, Turkey, China, Hungary, Romania. These countries were chosen based on the preliminary statistical analysis meaning that these partner countries have the biggest share in total exports of Republic of Moldova.

The coefficient of determination R^2 , which is one of the quality criteria of the obtained regression model, shows that the behavior of the model is approximately 88% explained by the included explanatory variables - regressors. In modern model research practice, the Fisher test is used to check the quality of the coefficient of determination R^2 .

With the help of the Fisher-test, it is verified significance of joint explanatory ability of the regressors. If the obtained Fisher value exceeds the tabular value for the corresponding level of significance, then the null hypothesis is rejected, and the regressors jointly explain the behavior of the studied variable, namely “EXPORT”. In this estimated model $F_{stat} = 68.4$, therefore the null hypothesis is rejected and the alternative hypothesis is accepted, that the obtained model is adequate to the real data.

Table 3. Results of the estimated panel model with fixed effects

Dependent Variable: LOG(EXPORT)

Method: Panel Least Squares

Sample: 2010 2021

Periods included: 12

Cross-sections included: 18

Total panel (balanced) observations: 216

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(GDP_CAP_PPP)	2.984913	0.534514	5.584351	0.0000
LOG(DIST_EC)	1.286876	0.597797	2.152699	0.0326
AT	0.247307	0.117711	2.100961	0.0369
C	-29.79812	9.046106	-3.294028	0.0012
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.875198	Mean dependent var	10.82874	
Adjusted R-squared	0.862397	S.D. dependent var	1.282918	
S.E. of regression	0.475896	Akaike info criterion	1.444932	
Sum squared resid	44.16305	Schwarz criterion	1.773084	
Log likelihood	-135.0526	Hannan-Quinn criter.	1.577506	
F-statistic	68.37357	Durbin-Watson stat	0.702955	
Prob(F-statistic)	0.000000			

Source: calculations made by author in Eviews

The Student's test allows to determine the statistical significance of each regressor separately. If the regressor is statistically insignificant, according to the Student's test, then such a regressor can be defined as not influencing the studied variable and cancelled from the model. Student's test is carried out by taking into account 2 hypotheses: the null hypothesis about the statistical insignificance of the parameters and the alternative hypothesis about the significant influence of the regressor on the studied variable. If $t_{stat} > t_{crit} (0.05; 212) = 1.96$, then the null hypothesis is rejected and the alternative hypothesis is accepted, that the obtained model is adequate to reality.

Using the Student's test gives us the possibility to identify the contribution of each regressor to the behavior of the studied variable. The goal is to determine the degree of influence of factors, and the Student's test is an important contribution. All variables proved to be statistically significant in the model. After calculation there is obtained the model (5)

$$\ln(\text{Export}) = 2.985 \cdot \ln(\text{GDP_CAP_PPP}) + 1.287 \cdot \ln(\text{DIST_EC}) + 0.247 \cdot \text{AT} - 29.798 \quad (5)$$

This equation is interpreted as follows:

Estimated coefficients correspond to the expected theoretical assumptions. The obtained positive value of 2.985 the explanatory variable GDP_CAP_PPP means that if

GDP per capita increases in the countries of the trading partner for export, then the estimated export to these countries can increase by 2.99%

The correct sign was also obtained in the DIST_EC regressor, which implies direct relation between economic distance and the potential export. Economic distance implies that the more developed in the economic partner, the less is the influence of physical distance.

Control variable AT demonstrates positive value, that characterized significant role of signing the Association Treaty. To a greater extent, Moldova's exports are affected by explanatory variable GDP per capita, purchasing power parity prices.

Conclusions

An empirical relationship known as the gravity model helps to explain the value of trade between any pair of countries and reveals the obstacles that continue to limit international trade in modern global economy. Gravity model explains how the value of trade between any two countries depends on the size of these countries' economies and explain the reasons for that relationship. Also, it emphasizes that an important condition for trade development is considered absence of trade barriers and presence of trade partners with a similar level of purchasing power of the population.

The geographical destination of exports of Republic of Moldova has changed over time. Recent decade has been marked by a large increase of share of European Union in export destination of Republic of Moldova, with gradual reduction of trade flows to Russian Federation. Evolution of trade relations with Russian Federation was marked by the introduction of certain trade measures concerning Moldova, that influence trade negatively. It is recommended to restart the discussions with the authorities of the Russian Federation in order to reassess the restrictive measures applied to goods of Moldovan origin.

Exports to European Union remain concentrated to four main partners, meaning that changes in economic situation of these countries can influence trade flows of Republic of Moldova. The gravity model proves that signing and implementing of the Association Agreement (AA) has positive influence on the export flows of the Republic of Moldova. In order to benefit from trade with the EU under the DCFTA, it is important to contribute to the competitiveness of domestic products on foreign markets through the implementation of recommendations, improving quality system and implementing and ensuring a viable system in the field of standardization, metrology and conformity assessment.

General assumptions of gravity model are confirmed by the elaborated model and the equation can be used to check how exports of Moldova respond to changes in economic performance of partner country, to changes in economic development of partner country, and membership of the same trade agreement.

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