UNIVERSITY OF NATIONAL AND WORLD ECONOMY
„International Economics and Politics“ Faculty
Department of „International Economic Relations and Business“

THE MEMBERSHIP OF BULGARIA IN THE EUROPEAN UNION: SEVENTEEN YEARS LATER

VOLUME II

Papers presented in English language

October 2024, UNWE – Sofia

UNWE ACADEMIC PUBLISHING HOUSE
Sofia, 2025

The collection is financed with funds from a targeted subsidy for the Research and Development Department of the University of National and World Economy under contract № NID NF-6/2024/B.

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UNIVERSITY OF NATIONAL AND WORLD ECONOMY
1700 Sofia, Student District, 19, 8th December Str.

CONTENT

THE ROLE OF THE EU IN THE INTERNATIONAL ECONOMIC SYSTEM DURING THE LAST TWENTY YEARS. LEGAL ASPECTS

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Abstract

The EU is a key player in the international economic system. It has, by virtue of the Treaties, the legal capacity to develop action in the field of economic relations with third countries by implementing a common policy covering trade in goods and services as well as foreign direct investments. This policy includes the conclusion of international agreements and the adoption of unilateral acts that regulate trade and investment relations with third countries. As an extroverted force, it promotes the liberalization of transactions and economic activities throughout time. In particular, since the mid-2000s, it has implemented a strategy aimed at opening markets on a global scale, by conducting negotiations and concluding comprehensive economic agreements with its major partners. Towards the end of the 2010s, several factors prompted the EU to rethink and review its trade strategy, focusing on the concept of open strategic autonomy. The result of this new approach is the shift of EU trade and investment policy towards the adoption and implementation of unilateral measures as a more appropriate and effective way to achieve its objectives, safeguard its economic interests, protect its security and integrity and promote the European values.

1. Introduction

The European Union (EU) exercises a common policy in the field of international trade relations and in the field of foreign direct investment (FDI) which enables it to formulate and implement a coherent and effective strategy in the context of the international economic system. Timelessly, this policy had an open and outward-looking character, seeking the liberalization of economic transactions both within the multilateral system of the World Trade Organization (WTO) and by concluding bilateral agreements with third countries. Thanks to this orientation, the EU has become the largest power on a global scale in the trade of goods and services while holding the first place in both inward and outward international investment. Towards the end of the 2010s, the weakening of the multilateral system of the WTO as an institution capable of further promoting trade freedom was felt in the international environment, while at the same time the increasingly frequent undertaking of unilateral action on the part of the EU's trading partners, with the USA prominent, and especially the adoption of unfair practices on the part of China, prompted the EU to review, in the early 2020s, its trade

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strategy, focusing on concept of open strategic autonomy. Manifestation of this new approach is the shift of the EU's trade and investment policy towards the establishment and implementation of unilateral measures as a more convenient and effective way to achieve its objectives, safeguard its economic interests, protect its security and integrity and also for the promotion of European values. The aim of the study is, after briefly analyzing, in the light of the Treaties, the EU's ability to play a central role within the international economic system, to highlight the fact that its action, while still seeking the opening of international markets, nevertheless, in recent years has focused on the implementation of the new agenda of open strategic autonomy. The concept of open strategic autonomy is analyzed and the legal means of its implementation are briefly examined.

2. The Legal Capacity of the EU to implement a common external commercial and investment policy

The EU is a key actor and subject of international relations. The EU Treaties confer on it the power to develop action at international level by exercising specific competences to achieve objectives in various fields (Article 21 TEU). The EU is a force with a strongly outward-looking character and orientation, and its competence to act in the international arena derives from the legal personality expressly conferred on it by Article 47 TEU. These competences allow the EU to confirm its role as an international entity and as a force capable of formulating and implementing policies in the field of international relations. The term „external action" refers to any activity that the EU develops in defined areas of international relations. It consists in the exercise of the corresponding external policy which includes the adoption of measures and above all the conclusion of international agreements based on specific provisions and has as its object the regulation of relations with third countries and the realization of specific goals.

The external action of the EU covers, among others, the field of trade relations with third countries, in which a Common Policy is exercised (Articles 206-207 TFEU). In other words, the key component of the external action of the European Union (EU) is the trade policy which the primary EU law establishes as the Common Commercial Policy (CCP) which is „formed on the basis of uniform principles" (Article 207 par. 1 TFEU). This policy confirms its position and role as a key factor within the international economic system. The EU has the exclusive competence to shape and implement this policy including all the measures adopted by the competent Union institutions to regulate the commercial transactions with third countries. The Article 207 TFEU defines the sectors covered by its scope and for which the EU only is competent, and on the other hand, it set out rules related to the procedure which must be observed in order to negotiate and conclude international agreements on the above sectors. This policy regulates foreign trade and not transactions carried out within the internal market (CJEU, Opinion 2/15, 16.05.2017, EU:C:2017:376, p. 35, CJEU 25.10.2017, C-389/15, EU:C:2017:798, p. 48,). In other words, the CCP is a purely external competence and a key axis of the EU's relations with the rest of the world.

After the entry into force of the reforming Treaty of Lisbon, the legal framework governing the implementation of the CCP became clearer and its content was adapted to the new reality of international economic relations and the objectives pursued by the EU. (Bungenberg, 2010). The CJEU contributed with Opinion 2/15 decisively to the clear delimitation of the sectors covered by the CCP and to which, consequently, it is expressly awarded, by virtue of article 3 par. 1 TFEU, exclusive competence in the EU. Specifically, this policy covers trade in goods, supply of services, commercial aspects of intellectual property and Foreign Direct Investments (FDI). With the explicit inclusion of the service sector, the commercial aspects of intellectual property and FDI in the scope of Article 207 par. 1 TFEU, it was sought to adapt the scope of the CCP in such a way that the exclusive competence for its exercise covers the global content of the EU's modern trade policy and the EU new generation economic agreements. The expansion of the scope of the CCP and its configuration harmonizes and goes along with the developments and changes that occur in the structure of international trade.

3. The EU Commitment to contribute to the promotion of International Trade and Investment Liberalization under its Primary Law

The Article 206 TFEU defines the character and orientation of the CFP in the context of the world trading system. It is a policy oriented towards the „opening" of international markets, towards the development and liberalization of international trade. Its strategic choice to promote the opening of international markets is closely related to the special weight it undoubtedly has in the field of international economic relations and the central position it holds as a global trading partner, as an outward-looking power that participates not only actively but also as a protagonist in formation of the international economic system. The EU is the leading trading partner for 54 countries around the world (including China, the US, the UK, the Western Balkans and neighboring countries). Its share in world trade in goods and services reached 17%. It is also the most important source of foreign direct investment worldwide, accounting for 31% of outgoing investment, and the second largest recipient of foreign direct investment globally, accounting for 25% of inward investment.

This objective is, of course, compatible with the fundamental objectives pursued by the EU in accordance with the Preamble to the TFEU, Article 3(5) TEU and Article 21(2e) TEU. The CCP is the EU's tool for promoting the above central objective.

First of all, according to the Preamble of the Treaty, the will of the member states is declared „*to contribute, by exercising a common commercial policy, to the progressive abolition of restrictions on international transactions*". By virtue of article 3 par. 5 TEU, the EU „*contributes to peace, security, sustainable development of the planet, solidarity and mutual respect between peoples, free and fair trade*". According to the Article 21 par. 2 e) of the TEU, the restrictions on commercial transactions prevent states from integrating into the global economy and the aim of EU policies is to abolish them in a progressive manner.

The Article 206 TFEU defines the objectives pursued by the EU in exercising the CCP with reference to the customs union, which proves the link between this policy and the customs union. It is worth pointing out that this provision explicitly refers to the „Union“ as the subject of action and not to the Member States and, therefore, underlines that the development of world trade is an objective for the achievement of which the responsibility and authority has been shifted from the member states in the EU. According to Article 206 TFEU, the EU, through the establishment of a customs union, develops, in the common interest, action that contributes to the achievement of objectives linked to the liberalization of trade and investment. By exercising the powers conferred by the Treaties, it contributes „*to the harmonious development of world trade, the progressive abolition of restrictions on international trade and on foreign direct investment, and the lowering of customs and other barriers*“ (article 206 TFEU).

The liberalization to which the EU contributes is global as it includes interventions both in the field of trade in goods and in that of the international supply of services as well as the FDI. The above-mentioned provision clearly, beyond any doubt and unreservedly reflects the strong decision of the EU to promote, together with its other partners in the international economic system, the opening of international markets. The wording of this provision goes beyond the limits of a simple declaration of intentions, essentially taking the form and character of undertaking a commitment to contribute to the achievement of the aforementioned central goal. It considers the fact that the EU as a WTO original member has adopted the principles of the WTO multilateral system and in particular the GATT 1994 according to which customs unions must contribute to the expansion of trade (M. Lickova, 2005).

Nevertheless, it is important to point out that Article 206 TFEU does not Article 10 does not impose the obligation for a full and absolute liberalization of EU trade with third countries. The pursuit of the EU is limited to creating a framework that will be favorable for trade and investment to develop. Therefore, the EU institutions undertake to formulate the CCP in such a way that its impact on trade and investment liberalization will be positive, but they don’t undertake the commitment to establish rules that will immediately impose the complete abolition of all kinds of restrictions on such transactions.

The Court has clarified that the EU is not obliged to apply to trade with third countries a regime similar to the full liberalization regime that has prevailed at intra-EU level. Member States are not required to extend to external trade the fundamental mandatory principles governing the free movement of goods and services within the internal market (CJEU 15.06.1976, sub. 51/75, EMI Records, EU:C:1976:85, p. 16-17). It follows from the above that the EU retains the ability to determine the extent and degree of trade liberalization with third countries considering what promotes and serves its interests, those of its member states and their businesses. In this context, it is possible in one case to judge that the promotion of liberalization to a large extent serves the

Union interest, while in another case that liberalization should be more limited in order to protect this interest. Therefore, the gradual liberalization of the framework for conducting international trade and FDI can sometimes be more extensive and sometimes more limited. In any case, however, the adoption of restrictive measures that would affect the existing degree or level of liberalization by making the conditions for conducting commercial transactions and carrying out FDI more restrictive must be avoided, as far as possible.

However, it is accepted that Article 206 TFEU must be interpreted in the sense that the EU is allowed to apply regulations that may affect trade with third countries, in particular when it comes to trade defense measures and more generally in any case where these are necessary for the protection of the economic interests of the Union, the Member States and their businesses (CJEU 05.05.1981, 112/80, Dórbeck 1981, p. 44, CJEU 19.11.1998, C-150/94, EU:C:1998:547, p. 67).

4. The implementation of the EU strategy for the opening of international markets

Consistent with the objectives of Article 206 TFEU is the strategy that the Commission has formulated and started to implement since the end of the 2000s within the international system. At the core of this strategy is the creation and maintenance of open markets on a global scale in the goods sector as well as in the services and investment sectors (Commission, 2007). The achievement of this objective is particularly important for the EU given its role as an important global economic partner. A key component of this strategy is the conclusion of free trade agreements with its major partners in the framework of the international trading system (Commission, 2010, Melo-Araujo, 2016).

We can mention, among others, the Comprehensive Economic and Trade Agreement (CETA) with Canada, (Levesque C., White Eric, 2017), the Free Trade Agreements with Singapore, Vietnam, Thailand, India, Malaysia, the Philippines, Australia and New Zealand (FTAs), the Economic Partnership Agreement (EPA) with Japan (Katakami K., 2016), the Trade Agreement with Peru, Colombia and Ecuador. An autonomous investment agreement is being negotiated with China.

This strategy will be developed in addition to efforts to liberalize trade in the WTO multilateral framework (Commission 2015). The purpose was to conclude comprehensive economic agreements regulating the trade in goods and services as well as sectors related to trade such as the investment regime, public procurement, competition issues, protection of intellectual property rights (Hannonen, 2017). These agreements establish a free trade area between the EU on the one hand and each third contracting party on the other, in the field of goods, services and investments. (Pantaleo and Andenas, 2017).

After the entry into force of the Treaty of Lisbon under which foreign direct investment was explicitly included in the scope of the CCP, the EU implemented a global policy on international investment. By implementing this policy, the EU sought to comprehensively regulate the investment sector in order to achieve both the liberalization of market access (initial establishment) and the strengthening of the investment protection on the host party territory (post establishment).

The EU's strategy to conclude new global economic agreements was partially reversed in 2018 due to the Court's Opinion 2/15. According to this, the undertaking of commitments in the field of investments does not fall under the exclusive competence of the EU but falls under the concurrent competence of it and the member states when it comes to agreements that establish a protection regime for all forms of investment and not only FDI (Conconi and al., 2021, Bischoff, 2011). Therefore, an EU agreement covering without exception all aspects of economic relations including investments, both direct and indirect, would have to be ratified, in order to enter into force, by all member states, resulting in the large delay in the full implementation of its provisions.

Therefore, as a consequence of Opinion 2/15, the EU has readjusted its strategy which now includes the conclusion of two separate agreements, namely:

(a) a free trade agreement governing the liberalization of trade in goods, services and the initial establishment of foreign investors for the purpose of carrying out economic activity as well as in all trade-related areas (competition, public procurement, intellectual property etc.).

(b) an Investment Protection Agreement which, because it covers areas of shared competence, will have to be ratified by all Member States based on their own constitutional rules before it can enter into force.

This new strategy was launched in the relations with Singapore, with which the Free Trade Agreement and the Agreement for the Protection of Investments have been signed, and it is predicted that it will be applied in the future and in the case of agreements with other countries (Japan, India, Vietnam, etc.).

5. The emergence and the implementation of the EU open strategic autonomy agenda

At the end of the 2010s, the EU was faced with new internal and external challenges such as the need to achieve the sustainability objective in the context of the commitments it has undertaken to fully implement the 17 Sustainable Development Goals (SDGs) of the United Nations as well as the green and digital transformation of the economy. Within this environment, it was deemed necessary to review the EU's trade and investment policy and in particular to formulate a new strategy on this policy, which would support the achievement of the EU's internal and external action objectives (Garcia-Duran and Eliasson, 2022). The aim is to exercise in the field of international economic-commercial relations a policy which will be open, sustainable and dynamic (Commission 2021). The Commission undertook this initiative in an international climate of uncertainty that had already been aggravated by tensions of a political and geo-economic nature. Two important aggravating factors are: (a) the strengthening of the inward-looking nature of the policies practiced by the parties participating in the international system, a strengthening which contributes to the increase of unilateralism and isolationism at the expense of bilateral cooperation and the management of trade relations within the framework of the multilateral system and (b) the upheaval in the international economic order caused by the rise of China and the distortion of the conditions of competition at the expense of the companies of the EU member states which it brings about.

The EU's open strategic autonomy emerges as a key objective and trade policy must contribute to its achievement by supporting EU interests (Hoffmeister, 2023). The importance of open strategic autonomy as a policy choice and decision-making mindset is that the EU has the ability to make its own choices and participate actively and decisively in the shaping of the international environment by playing the role of a leading power analogous to its economic strength.

5.1. The notion of open strategic autonomy

At the core of the notion of open strategic autonomy is the EU's power to project its own strategic interests and values in its relations with the rest of the world. This is an approach fully compatible with the objectives that the EU must pursue when developing its external action in accordance with its founding Treaty. Specifically, by implementing policies and actions in the field of international relations, it must aim to protect its values, its fundamental interests, its security, its independence and its integrity (Article 21 par. 2 a) TEU. Without ignoring the need for global cooperation and without undoing its fundamental commitment to maintaining open economies and markets, to open and fair trade, the EU will emphasize the dynamic defense of its interests, the protection of its economy against unfair trade practices and in ensuring a level playing field.

The main characteristic of open strategic autonomy is the disposition for dialogue and cooperation that will be based on rules, which will however be accompanied by the demonstration of dynamism and determination in facing unfair practices that harm the interests of the Union as a whole through the adoption and implementation of autonomous, unilateral measures whenever necessary.

As the EU is the largest player in the global trading system and the largest exporter and importer of goods and services worldwide, it is obviously still a strategic choice to support free trade in principle but based on rules and principles respected by all parties. However, in case of non-compliance of its partners with this legal framework, the EU must have the necessary legal tools to enforce this compliance and protect its strategic commercial interests.

It should be pointed out that the promotion of strategic autonomy through the exercise of a trade policy that serves the geopolitical interests of the EU, does not mean either abandoning or discrediting the processes of the multilateral system of the WTO. On the contrary, the reform of the WTO is deemed imperative in order for the multilateral trade governance framework to work more effectively and to establish modernized rules that on the one hand ensure a safer and more stable environment for commercial transactions and on the other hand are capable to eliminate distortions of competition. In other words, it is a key geopolitical interest of the EU to support the WTO system in order to prevent its undermining and the erosion of its rules that will lead to the formation of a conflictual international environment. To this end, it must take a leading role in the process of updating these rules so that globalization becomes more sustainable and fairer.

At the same time, emphasis must also be placed on the full and proper implementation of the Free Trade Agreements as tools that ensure the pursuit of EU values and interests.

However, the achievement of EU autonomy has as a key prerequisite an increase in its capacity to claim and enforce its interests even autonomously. In this context, it must seek to ensure that trade agreements are fully implemented and that the rights and obligations they provide for, in particular with regard to market access, are enforced on all participating parties. This necessity covers in particular the sustainable development chapters of the EU agreements, in order to upgrade social, labor and environmental standards at global level. Open strategic autonomy implies that the EU undertakes international commitments at bilateral and multilateral level to open up markets while at the same time being able to fully exercise its rights to shield its economy from unfair trade practices or other hostile acts of third countries that have protection orientation and cause distortions affecting EU exports.

In the direction of strengthening its strategic autonomy, the EU focuses on undertaking specific actions.

First, it ensures that the benefits deriving from the implementation of trade agreements with third countries are fully exploited and provides support to EU stakeholders to take advantage of the opportunities created by these agreements. At the same time, it monitors the proper implementation and enforcement of EU trade agreements and facilitates complaints about market access barriers and breaches of trade and sustainable development obligations. In addition, it will seek to enforce its partners' compliance with the rules of trade agreements by activating dispute settlement mechanisms either in the WTO or in bilateral procedures. In the event of an impediment to the resolution of disputes in accordance with the above, the EU will unilaterally apply the Enforcement Regulation in order to ensure the implementation of the agreements.

As mentioned, one of the central objectives of the EU's new strategy for an open, sustainable and dynamic trade policy is to strengthen its capacity to assert and defend its interests and to enforce the rights and obligations arising from its trade agreements even with measures it takes on a unilateral basis in cases where this is required. In this context and given the inability of the WTO to promote the establishment of regulations at a multilateral level, it can be seen that, in recent years, the unilateral dimension of the trade policy practiced by the EU has been strengthened (Vidigal, 2023). This is a shift in this policy (Verellen and Hofer, 2023) which manifests itself in practice with the adoption (by virtue of article 207 par. 2 of the TFUE) of important for the economic interests of the Union as a whole it acts in the form of Regulations (De Ville and al., 2023).

5.2. The unilateral imposition of the obligation to comply with the rules of international trade agreements

Particularly important for the protection of the EU's commercial interests is the Regulation establishing a common legislative framework on the exercise of the EU's rights to implement and enforce the rules provided for by the trade agreements it has concluded with third countries. This is the Regulation 654/2014, (OJ L 189, 27.06.2014, as amended by Regulation 2021/167 of 10.02.2021). These agreements (multilateral and bilateral) confer mutual rights but also impose corresponding obligations on the contracting parties. The purpose of the Regulation is to provide the EU with the means to safeguard its economic interests through the effective exercise of its rights especially in cases of application by third countries of restrictive measures that cancel or reduce the benefits deriving from international agreements for EU economic agents. It is necessary to equip the EU with the ability to react quickly and flexibly within the framework of the procedures set out in the above trade agreements. Indeed, as is well known, the Dispute Settlement Mechanism is a component of the multilateral legal system of the World Trade Organization (WTO), while other international trade agreements that have been concluded on a bilateral or regional basis establish procedures aimed at settlement, through a mutually acceptable solution, of disputes arising between the EU and the other contracting parties. In the event, however, of an impossibility of resolution within the framework of the aforementioned procedures, the EU must have the ability to unilaterally apply measures that seek to bring third countries into compliance with the rules of international agreements in such a way that all parties derive mutual benefit from them. In detail, the Regulation establishes rules and procedures that ensure that the EU will exercise, effectively and in a timely manner, its right to suspend or withdraw concessions or other obligations it has undertaken as a party to international trade agreements. The main purpose is for the EU to react when third countries violate rules of international agreements harming EU interests, so that a satisfactory solution is finally reached which will allow EU businesses to benefit again. In the context of the implementation of Regulation 654/2014, the Commission has adopted Executive Regulations for taking trade policy measures concerning products originating in third countries. We can mention the Regulations which imposed countervailing measures in the form of additional import duties on certain products originating in the United States and which were adopted as EU response to import duties on steel and aluminum products imposed by the US (Executive Regulation 2020/502, OJ L 109, 07.04.2020).

Evaluating the Regulation, we could say that it is a legal instrument suitable for protecting the interests of the Union as a whole against the actions of third countries. By implementing its provisions, albeit to a relatively limited extent so far, it has become clear to its partners that the EU has the ability to react quickly, effectively and decisively to assert its rights. The mere fact that it has in its „quiver“ such a means of enforcing the rules of international trade agreements is sufficient to act as a deterrent by discouraging third countries from violating them. In other words, only the threat of application of the Regulation is capable of safeguarding the Union's interests.

5.3. The prevention of distortions in the functioning of the internal market caused by foreign subsidies

The EU's trade defense instruments are complemented by a new tool to prevent the distortion of the functioning of the internal market and the undermining of a level playing field for the various economic activities in the EU territory. This legal tool is the Regulation 2022/2560, which establishes rules and procedures for investigating foreign subsidies that cause distortions in the internal market and for facing the said distortions (FSR Regulation/Foreign Subsidies Regulation) (OJ L 330, 23.12.2022) so as to ensure equal and fair conditions of competition between all companies operating in the EU (Blockx and Mattiolo, 2023).

The FSR Regulation covers cases of foreign subsidies used to finance economic activities in the internal market in any sector of the economy, and in particular foreign subsidies that fully or partially finance mergers involving a change of control for EU companies as well as those from which economic operators benefit from in order to participate in public procurement procedures in the EU with a view to being awarded the contracts in question. The implementation of the regulation will help to remedy the distortions that may be caused, directly or indirectly, in the internal market by foreign subsidies that benefit companies carrying out economic activity within the EU. By strengthening the resilience of the internal market, it will help to achieve the open strategic autonomy of the EU.

5.4. The regulatory framework for the control of FDI for reasons of protection of public order and security

In the field of international investment, the Regulation 2019/452 (OJ L 79I, 21.03.2019) established a framework for the control of FDI in the EU for reasons of public security or public order and for a cooperation mechanism between Member States and between Member States and the Commission regarding FDI that is likely to affect security or public order. The object of this Regulation is in particular to deal with cases in which public order and security in EU member states would be at risk from the acquisition or control by foreign investors of a specific business, infrastructure or technology.

It is Chinese FDI that causes the most concern (Van Zon, 2023). The Chinese investors target acquisitions for strategic reasons, rather than purely economic reasons, and are supported by their state.

The EU's FDI control mechanism is a key pillar of the open strategic autonomy agenda and a prime example of the unilateral shift in EU trade and investment policy and a wider global trend of increasing such mechanisms (Sattorova 2023). We would say that the decisive factor that pushed the EU to establish this mechanism is the crisis of confidence in international relations and in particular in EU-China relations (Misra, 2023). In detail, Regulation 2019/452 (FDI Control Regulation) establishes procedures by which an FDI can be assessed, investigated, approved, conditioned, prohibited or reversed (Moberg and Hindelang, 2020, Verellen, 2021).

Under the provisions of the FDI Control Regulation, EU Member States can take measures to prevent a foreign investor from acquiring or taking control of a company if such acquisition or control would pose a threat to their security or public order. This also includes the circumstance where these threats are connected to a public health emergency.

5.5. The prevention of economic coercion by third countries

The most recent important addition to the EU trade defense arsenal is Regulation 2023/2675 whose object is the effective protection of the interests of the Union as a whole (EU and its member states) from economic coercion by third countries (Anti-Coercion Instrument / ACI). It establishes a framework for providing the EU with the ability to react to economic coercion so that it is prevented or stopped and, on the other hand, to take countermeasures to deal with it, as well as to seek reparation for the damage that may have been suffered (Lonardo and Szép 2023). In order for economic coercion to be considered to exist, certain conditions must be met such as (a) the implementation or threat of implementation by a third country of measures affecting trade or investment, (b) by applying or threatening to apply such measures the third country seeks the prevention, suspension, modification or adoption of an act by the EU or a Member State, and (c) the conduct of the third country in question must finally constitute its interference with the legitimate sovereign choices of the EU or a Member State.

The ACI as an instrument of foreign economic policy complements the EU's trade defense arsenal and strengthens it at a time of increasing geo-economic tension with its trading partners. This is also part of serving the goal of achieving the strategic autonomy of the EU and ensuring its independence against coercive action by third countries and confirms the general shift towards unilateral policy.

6. Conclusions

In the framework of the implementation of the Open Strategic Autonomy agenda, the EU has proceeded to adopt unilateral measures that mark a significant shift in its foreign trade and investment policy. Until recently, its priority was the management of economic relations with third countries on a multilateral and, above all, bilateral level by concluding trade liberalization agreements. In recent years (2019 – 2024), however, the EU has placed at the center of its policy in the field of international economic relations, the formation of a legal framework that will ensure the protection of its own strategic interests and those of its member states. The unilateral nature of the legal regime governing trade and investment relations with third countries is therefore strengthened so that EU policy in these areas is adapted to the need to achieve and maintain the EU's strategic autonomy in an international environment with new challenges, tensions and risks.

The crucial question arises whether this development means that the EU is turning into a commercial „fortress“, a closed and inward-looking power pursuing a unilateral trade diplomacy that will replace the initial strategy of liberalization through conventional legal instruments. It is necessary to clarify that the EU remains an outward-looking entity that seeks in principle the prevalence of the principle of an open economy with free competition both within the internal market and at the international level. In this context, its will to comply with the rules of the international agreements it has concluded and to keep the commitments it has undertaken by virtue of them, is not in doubt.

However, obviously all this applies when its major trading partners also respect these agreements so that all contracting parties reap, in conditions of reciprocity, a benefit. The review of the EU's trade and investment policy does not lead to the denial and discrediting of multilateral and bilateral cooperation. However, it entails taking all the necessary and appropriate measures so that the EU can react dynamically in any case where third countries (a) exercise a policy of economic coercion against it, (b) they breach multilateral or bilateral rules by restricting access to EU goods, services and investment, (c) they cause distortions in the internal market through subsidies to companies carrying out economic activity in its territory, as well as in any case where third country investors seek to acquire EU companies in critical sectors related to the protection of public security, public order and public health. The opening of international markets cannot be promoted on terms that harm the fundamental interests and values of the EU. The maintenance of open strategic autonomy presupposes and requires ensuring the possibility of exercising control, taking protection and reaction measures. The EU is now equipped, at a legal level, with the means to exercise all its rights in the field of international economic relations by preventing and combating unfair and aggressive external practices.

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REGIONAL DEVELOPMENT: KNOWLEDGE ECOSYSTEM IN GORENJSKA REGION

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Abstract

The growing gap between major cities and more remote regions is presenting serious societal challenges. Peripheral areas tend to offer fewer jobs, with less variety and lower qualifications. As a result, skilled workers are migrating to urban centers, leading to population decline in outlying regions. This widening disparity is largely driven by the increasing importance of knowledge-based industries, which thrive in cities due to factors like economies of scale, better skill alignment, and knowledge sharing. In contrast, remote regions, especially those reliant on traditional industries, are struggling to adapt to the modern economy. Regional support systems is important factors that influence on the creation and utilization of economic opportunities.

Key words: up to 5 words. Format: TNR 12 pt., alignment in block, spacing 1,15. The key words have to be used common in the main text, as well as to be included in the abstract and if possible in the title

JEL: For example, **JEL:** A10, F60 (see https://www.aeaweb.org/jel/guide/jel.php)

This paper present discussion how to improve knowledge and skills through knowledge ecosystem in Gorenjska region in Slovenia.

A. General economics and teaching

Introduction

The main objective of the paper is to propose how reach development goal of Gorenjska region. Gorenjska is the largest statistical region, it belongs to Alpine region with a characteristically diverse mountain landscape. It is located in northwestern Slovenia, is known for its scenic Alpine landscapes and economic significance, driven by a combination of traditional industries, tourism, and emerging sectors. Geographical location with main transport links with Austria and Italy, which allows easy access to important European market. Jože Pučnik Ljubljana Airport, is key for business and tourism. Gorenjska has a developed industrial base with strong companies in various sectors, such as machinery and metal processing and electronics. Gorenjska is also one of the most important tourist destinations in Slovenia, known for destinations such as Bled, Bohinj, Kranjska Gora and Triglav National Park (RRA BSC, 2022). But there is growing gap between major cities, rural areas, and more developed regions is presenting

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serious societal challenges. Peripheral areas tend to offer fewer jobs, with less variety and lower qualifications (Iammarino et al., 2017).

The development goal of Gorenjska region is to strengthen the sustainable development of industrial, research and economic capacities (RRA BSC, 2022). We know that some regions grow more and faster than others with similar structural preconditions because of the successful construction and exploitation of opportunity spaces. Institutions and firms must see the opportunity window, which mean a period of time during which some action can be taken that will achieve a desired outcome. It depends of individuals or group of individuals. The development of new industries in regions as a result of a bottom-up process is not new (Varga et al., 2020). Innovation policy is created 'bottom-up' as an outcome of 'collective entrepreneurship' through collaboration among business, government and academic actors (Etzkowitz, Klofsten, 2005).

The research was carried out based on the analysis of several relevant professional articles and reports published online. In addition, a discussion was held in a focus group, which included deans and principals of faculties and vocational schools Gorenjska region, later we expanded the discussion to mayors and businessmen from region.

The paper is structured as follows. The next section is Literature review and theoretical framework where we discuss about new regional industrial path development, next section is Gorenjska region and their strategic direction. In this chapter we preset Slovenia, Strategic directions of development for Gorenjska region. We also prepare short benchmark with neighbor region Caranthia in Austria. The final chapter is Conclusion. There we discus possibilities for economics growth and development of the region.

Literature review and theoretical framework

Regional development is made possible by characteristic but different types of knowledge from science, tradition, culture, industrial use, etc. Some of this knowledge is derived from the individual region, some is transferred to the region, and some needs to be built to provide a new knowledge base (Hilpert, 2004).

The key concepts of smart specialization are the 'entrepreneurial discovery process' and 'structural change (Varga et al., 2020). Regions sustainable competitive advantages and superior performance are determined by the procession of valuable, rare, and imperfectly imitable resources. Economic development emerges due to the intertwining of a whole range of actions, and intended and unintended results of them. Boschma and Martin (2007) mentioned two theoretical possibilities to tackle new path development namely evolutionary and institutional theory. *Evolutionary theory (1)* suggests that historically grown structural preconditions produce probabilities for certain future paths. The continuities of the past include individuals' skills and knowledge, organizational routines, network interdependencies between individuals and organizations, and institutions (Grillitsch, Rekers, 2016). Recently, proponents of evolutionary economic theory have also acknowledged that self-transformation may be the result of unrelated diversification (Boschma et al., 2007). *Institutional theory (2)* exposes that national as well as regional institutions play an important role in shaping economic development, competitiveness and innovation. Institutions influence innovation, economic activities and thereby the development of the industrial profile of countries. Regional paths emerge due to the intertwining of a whole range of actions, and intended and unintended results of them (Grillitsch, Sourauta, 2020).

Entrepreneurs who are in good positions to understand a region's economic capabilities take the lead in discovering new domains of opportunities (Hausmann, Rodrik, 2003). Knowledge spillovers from successful initial discoveries then result in a series of imitative firm entries, leading to the concentration of resources in the new domain and a consequent structural change in the region's economy. Structural change may take different forms ranging from diversification and modernization of industries to the appearance of radically new sectors in the region (Foray et al. 2011).

Policies that target entrepreneurship development and support regional actors to learn from external knowledge sources play a key role in the process of entrepreneurial discovery. Regions with underdeveloped entrepreneurial ecosystems are hardly capable of acting in the bottom-up discovery process of smart specialization (Varga et al. 2020).

In order to carry out their activities for smart specialization, entrepreneurs need a suitable environment, supporting ecosystem. However, entrepreneurship is a complex phenomenon, which emerges in the context of system-wide interactions amongst its different components (Ács, Autio, Szerb, 2014). Entrepreneurial activity requires innovation when entrepreneurs move from initial disequilibrium towards equilibrium. According to the theory, a context with a larger knowledge base will generate more entrepreneurial opportunities (Acs et al. 2013). This relationship holds at both national and sub-national level.

Entrepreneurship is about discovering and exploiting opportunities to create value (Shane, Venkataraman, 2000). It is important for innovation and development of region. Public administration and government policies should support both entrepreneurship and innovation as such support is necessary for organizations as they design programs and develop policies for growth and sustainability (Galbraith et al., 2017). Schumpeterian innovative entrepreneurship, institutional entrepreneurship, and place-based leadership are the three fundamental and conceptually distinct types of transformative agency (Schumpeter, 1911). Innovative entrepreneurship (1) is a crucial engine of change, it is the source for path-breaking innovations triggering new industrial specializations and the transformation of places (Foray et al., 2011). Institutions (2) is generic terms can be defined as the rules of the game, have been shown to influence the innovativeness and competitiveness of countries and regions. Actions that are directed towards transforming existing or creating new institutions are relevant for the emergence of regional growth. Place-based leadership (3) captures actions that aim at transforming particular places by pooling competencies, powers and resources to benefit both to individual objectives and region (Sotarauta, 2016). Leaders are individuals, and groups of individuals.

Entrepreneurship activity relies on new and existing knowledge to facilitate economic development (Welter et al. 2019). Knowledge become an increasingly discussed area of regional development; it is important economic factor. Knowledge is a strategic, high-quality source of power. Knowledge assets – technological and human capital – have been recognized as key resource for sustaining competitive advantage in a dynamic turbulent environment (Vidic, 2022). It is a strategic, high-quality source of power. Knowledge represents a potential source of efficiency and profit (Senoo et al., 2007). Firms must collect, disseminate and create knowledge. Knowledge can be created on personal/organizational/regional level, and also externally, such as with partners, customers, partners and suppliers. This knowledge derives from a variety of resources. Knowledge is formed and exist in the mind of peoples; it is connected with innovations and entrepreneurship.

Localized knowledge development and diffusion is the core focus of the innovation systems literature (Edquist, 2006) but knowledge can also flow and anchor across space (Uyarra, Flanagan, 2022). Knowledge is unique and competitive resource. Resources that are rare and valuable can be competitive advantage. The ability to create and use knowledge is an important source (Nonaka, Takeuchi, 1995).

Knowledge come from the local environment, some from neighbourhood, also from external sources and others need to be built to provide an appropriate new knowledge base for a competitive economy with high added. Regions that work to develop knowledge networks and clusters of innovators and creators can realize growth opportunities for new ventures as well as small and medium-sized organizations which in turn can grow the regional economy. These regions, focused on incubating knowledge-based growth and development, create an ideal environment for further innovations and knowledge creation. This focus on knowledge creation within an environment may result in the development of innovative clusters and enhanced entrepreneurial ecosystems (Kraus et al., 2021).

The knowledge is extended by entrepreneurial experimentation that transforms knowledge into products and services. Developing successful innovations is essential for creating and sustaining a firm’s competitive advantage (Vidic, 2022). Edquist (2006) identifies functions and activities that shape an innovation system such as setting up organizations, changing institutions, networking, or providing education and research. Innovation policy is created ‘bottom-up’ as an outcome of ‘collective entrepreneurship’ through collaboration among business, government and academic actors. Evidence suggests that the combination of regional and international knowledge networks is conducive for firm innovativeness (Tödtling, Grillitsch, 2015). Social cohesion provides an effective combination of knowledge from different areas of expertise (De Luca, Atuahene-Gima, 2007).

Local culture and leadership encourage people to engage in communication, collaboration and social interaction (Li Huang, Tsai, 2009). Social cohesion provides an effective combination of knowledge from different areas of expertise (De Luca, Atuahene-Gima, 2007). Interacting with a combination of knowledge comes to the extent of good interpersonal relationships, based on atmosphere of honesty, trust and support in the organization.

Strategic directions of development for Gorenjska region

Gorenjska and its economy

Gorenjska is an alpine region, characterized by high mountains, Gorenjska is an alpine region with a characteristically diverse mountain landscape. Natural-geographically, 70% of Gorenjska is mountainous, only 30% lies in the valley-plain part of central Slovenia. Settlement is concentrated in the central lowland part (RRA Gorenjske BSC, 2022). It consists of 18 local communities: Bled, Bohinj, Cerklje na Gorenjska, Gorenja vas – Poljane, Gorje, Jesenice, Jezersko, Kranj, Kranjska Gora, Naklo, Preddvor, Radovljica, Šenčur, Škofja Loka, Tržič, Železniki, Žiri and Žirovnica. Among them is one city municipality – Kranj Municipality (RRA BSC, 2022).

Jobs in service activities dominate. In 2018, the share of employment in service activities was 56.7%, agriculture employed 6.1%, and industry 37.2%. A comparison of employment by activity in 2012 and 2017 shows a decline in the number of employees in construction and agriculture. The number of employees increased the most in manufacturing activities (where a total of 29.3% of employees are employed) and in trade, catering and transport (SORS, 2019).

In terms of development, it lags behind the EU average, but the situation is improving (in 2017, Gorenjska reached 76% of EU GDP, measured in SKM per capita, and in 2018, 78%). Within the cohesion region of Western Slovenia, Gorenjska has the lowest GDP, compared to neighboring Austrian regions, this indicator is even 1.5 times lower in Gorenjska. It should not be ignored that in 2018 the development position of two regions (Southeastern Slovenia with Novi Mesto and Savinjska with Celje, which are classified in the less developed Eastern Cohesion Region) was higher in terms of GDP than that of Gorenje (Eurostat, 2020). Both the geographical and business environment is very equal and comparable for the regions with which we are comparing (the exceptions are Trieste and Koper due to their seaside location), therefore Gorenjska can only look for its competitive advantages within itself and in a quick response and appropriate placement in the external, wider (global) space (RRA BSC, 2022).

Table 1. Comparison between the Slovenian and Gorenjska region economy. Added value in millions of EUR in Slovenia and Gorenjska by industry in 2012 and 2022

			2012			2022		
	SLO*[1]	V %	GOR*[2]	V %	SLO*[1]	V %	GOR*[2]	V %
Agriculture, forestry and fishing	712	1,86	59	1,74	1048	1,70	93	1,60
Manufacturing, mining and other industries	8112	21,20	844	24,87	12624	20,52	1501	25,75
..of which: Manufacturing activities	6790	17,74	787	23,19	11334	18,42	1433	24,58
Construction	1820	4,76	143	4,21	3425	5,57	278	4,77
Trade, hospitality, transport	6240	16,31	562	16,56	10208	16,59	993	17,04
Information and communication activities	1350	3,53	59	1,74	2185	3,55	112	1,92
Financial and insurance activities	1363	3,56	66	1,94	2082	3,38	97	1,66
Real estate business	2399	6,27	236	6,95	3741	6,08	367	6,30
Professional, scientific, technical and other business. activities	2986	7,80	187	5,51	5122	8,32	283	4,86
Administration and defense, social security, education, healthcare	5631	14,72	387	11,40	8569	13,93	573	9,83
Other activities	864	2,26	64	1,89	1196	1,94	99	1,70
Together	38267	100,00	3394	100,00	61534	100,00	5829	100,00

* [1]SLO-Slovenija, *[2]GOR-Gorenjska

Source: SURS, 2024

Entrepreneurial ecosystem in Gorenjska region

In order to get to know the supporting environment (ecosystem) of knowledge development as best as possible, we reviewed in the reports a set of institutions that are regulators or promoters of development in the region, connecting institutions, voluntary associations and those that form a network of educational and consulting services. m We were mainly interested in the offer of educational and consulting services, work in the field of development and research and other support services.

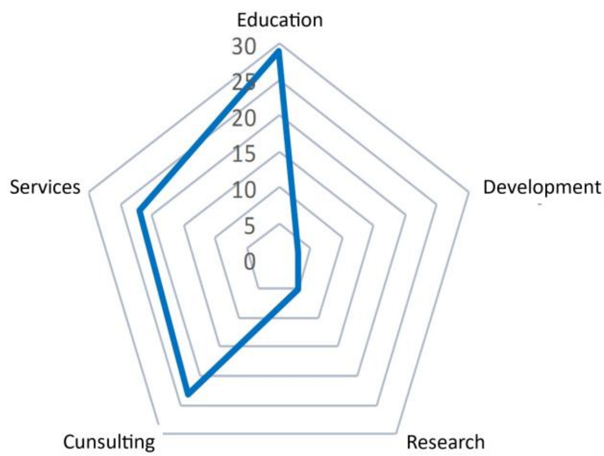
Table 2. Institutions that represent the ecosystem of a supportive knowledge environment in Gorenjska region

Institutions	Number	Services for customers
Administrative units	5	Connecting governmental policy with local municipality
Municipalities	18	Local strategy planning and implementation
Secondary schools	16	Education
High vocational school	6	Education
High schools and faculty	8	Education, research and development
Research unit	5	Research and development
Chamber of commerce	1	Representing, nonformal education, supporting, consulting
Handcraft chambers	5	Representing, nonformal education, supporting, consulting
Agricultural Forestry Chamber of Slovenia Agricultural Forestry Institute Kranj	9	Representing, nonformal education, supporting, consulting
Institute for Forests – regional units	2	Nonformal education, supporting, consulting
Triglav national park	1	Connecting citizens in national park, supporting them and education
Business development centers (Kranj, Škofja Loka, Jesenice)	3	Business support center, nonformal education, …
Local action groups	2	Connecting individuals and institutions, networking, sharing specific knowledge
Business incubators and other developmental institutions	6	Business support, mentoring, coaching
Associations[1]	386	Connecting individuals and institutions networking, sharing specific knowledge
Volunteer organizations	5	Connecting individuals and institutions, networking, sharing specific knowledge
Financial institutions (banks)	6	Financial support, financial consulting, …

Source: Adapted from: Pogačnik, Vidic, 2016

[1] For the associations that we obtained from the official records of the Ministry of the Interior, we took into account: scientific research, educational, professional and political associations (140), associations for environmental protection, cultivation and breeding of animals and plants (143) and associations for local development (103). These are equestrian, hunting, fishing, beekeeping, tourism associations, associations for the preservation of customs, associations for the protection of the environment, nature and animals, associations of farmers, associations for development, and scientific research associations, where only three are registered in 5 administrative units societies.

Gorenjska region have a strong ecosystem. Between institutions dominate educational institutions where formal education can be obtained. To this we could add folk universities (seminars, primary school for adults, ...), the Agricultural Forestry Institute, the Forestry Institute, the Chamber of Commerce and Industry, the Chamber of Commerce, the Triglav National Park and many other private institutions. Part of lifelong education also takes place in companies; they have a relatively strong consultancy in the field of agriculture and supplementary activities through the Chamber of Agriculture and Forestry. its advisory services. Counseling for entrepreneurs is provided through the Chamber of Commerce or through the Chamber of Commerce and Industry. But there is significantly worse situation in the field of research (fig. 2). Among financial institution dominate banks, there are lack of venture capital.



Source: Pogačnik, Vidic, 2016

Figure 1. Institutions of the supporting environment and their services

Strategic directions Slovenia and Gorenjska region

The development of individual economic entities depends on the business environment in which they operate. Therefore, in the article, we also analyzed the strategic orientations given for Slovenia and the Gorenjska region. For comparison, we also took the Carinthia region in neighboring Austria.

Strategic directions of development at the state level. The central goal of the Development Strategy of Slovenia 2030 is to ensure quality life for everyone (Figure 1). It can be realized through balanced economic, social and environmental development, which takes into account the limitations and capabilities of the planet and creates conditions and opportunities for current and future generations (Government of the RS, 2017). It is necessary to ensure economic stability, which is one of the most important conditions for achieving a high standard of living and quality of life. Economic growth must be inclusive and green and must be based on high competitiveness and innovation. This would enable sustainable development, which will also be more resistant to economic shocks due to the greater balance of all three aspects of development, while at the same time enabling high involvement of the population in creation and sharing and reducing the burden on the environment. Inclusive growth assumes regional uniformity of development.

It is important to create high added value supported by innovation, basic and applied research, stimulation of creativity and the exploitation of digital potentials and all the opportunities brought by the fourth industrial revolution. Therefore, the state must place research and innovation at the center of development policies to achieve a more competitive and responsible business and research sector.

Strategic directions of development at the level of Gorenjska region. The Regional Development Program of Gorenjska 2021 – 2027 (RRA BSC, 2022) plans to strengthen regional development. It is important to focus on the promotion of knowledge, creativity and innovation, as many educational and cultural institutions, companies and other associations are concentrated in Gorenjska, which have the potential for innovation and development. We will encourage all actors to connect, transfer and use knowledge and experience for the sustainable development of the economy, agriculture, tourism and, consequently, the sustainable development of the entire region. Activities will be aimed at the use of advanced technologies, digitization, sustainable use of natural resources, cultural heritage and the circular economy, which will contribute to the creation of products and services with high added value. A chapter related to multidisciplinary lifelong education, research and development is also highlighted.

It is important to promote the entrepreneurial approach in agricultural and non-agricultural activities in rural areas. Entrepreneurship ensures the development of services and products, the development of new innovative business models, technological development and the opening of new green jobs also in rural areas. We must understand that part of the wider area. We follow Boschma (2004) in defining regions not as administrative units but territorial contexts with a bearing on the behavior and performance of local organizations, which in turn depends on the embeddedness of local actors in place-specific production and innovation networks, competence and knowledge bases, and institutional environments.

Strategic directions for the development of Carinthia (Austria). Carinthia has ambitious plans to become a kind of „Silicon Valley“ of Central Europe (Delo, 2024). In order to achieve this, it focuses on the development and promotion of high-tech sectors, innovation and digitization. The region already has some important advantages, such as a strategic location between Austria, Italy and Slovenia, a strong technological university in Klagenfurt (Alpen-Adria-Universität Klagenfurt) and numerous companies and institutions engaged in research and development. Austrian Carinthia is a leader in Europe in the field of sustainable economy. In the Green Tech Valley association, they design ecological solutions of the future. In the pursuit of sustainable and environmental goals, they have developed a first-class economic network that ensures innovative integration of key actors connected in the so-called Green Tech Cluster association, which already includes more than 260 companies and research institutes (Delo, 2024). Together, they are looking for opportunities to protect the climate and circular economy solutions. They exchange knowledge and innovations and thus move milestones in the field of environmental technology.

Conclusion

Gorenjska has a unique position due to the intertwining of natural beauty and economic growth potential. Recent initiatives in Gorenjska highlight the commitment to promoting innovation, education and cooperation between various stakeholders, including state authorities, educational institutions and the private sector.

The strategic development plan for the Gorenjska region outlines key areas of growth and improvement. It focuses on enhancing the region's economic potential, fostering innovation, and improving infrastructure. The plan also emphasizes sustainable development, environmental protection, and improving the quality of life for residents.

Ensuring sustainable development that capitalizes on the area's unique strengths. At the regional level, the influence of institutional traditions has likely become most prominent when working on regional innovation systems. In this context, both formal and informal institutions unique to a region, along with how the region is integrated into a broader institutional framework across different levels, play a crucial role. These factors establish important foundations for innovation and create opportunities for regional development.

The notion of opportunity space extends from the existing structural preconditions to potential futures. to move into unknown terrain, to break with existing growth paths. Entrepreneurial opportunities, however, are not distributed evenly across space and time. Some regions in some periods will offer more entrepreneurial opportunities than others (Grillitsch, Sotarauta, 2020). Specialization policy is a recently introduced innovation-based regional development approach. Industrial specialization of a region is considered ‘smart’ if it grows out of the regions’ own traditions instead of the (typically non-replicable) experiences of well-known successful regions located elsewhere in the world (Varga, et al. 2020).

The general level of regional entrepreneurship may crucially determine the efficiency of smart specialization policies. Region-specific opportunity space: defines what is possible considering regional preconditions. Regional ecosystem and support systems for innovative entrepreneurship comprise a number of factors that influence the creation and utilization of economic opportunities (Grillitsch et al., 2018). New domains of opportunities require the integration of the local knowledge base with scientific or technological knowledge developed in universities, private research institutes or specialized research groups located in other regions (Varga et al., 2020). Global linkages may provide opportunities in terms of accessing complementary knowledge or compensating for a lack of knowledge available regionally.

The competitiveness of the region depends on the form of economic development where individual economic entities operate. It must follow sustainable principles: anticipate and satisfy the needs and wishes of customers, use business models that enable profit generation, preservation and strengthening of social and environmental values, and the co-creation of positive long-term effects for various groups of stakeholders in economic, social and environmental terms (Mitchell, Woolischcroft, Higham, 2010). The notion of opportunity space extends from the existing structural preconditions to potential futures. It extends from regional preconditions to potential novel combinations of regional and extra-regional knowledge, resources and institutions.

The aim is to create a dynamic ecosystem where knowledge and research can be efficiently converted into economic benefits. Knowledge is a key competitive resource, develop within collaborative networks involving various institutions (e.g., universities, public or private research laboratories), and the participants in these networks are not necessarily located in the same region. A large number of providers does not necessarily guarantee quality. We propose that the perceived gap between the extensive offerings of public and private institutions (the knowledge development support ecosystem) and the quality of their work be examined primarily from the users' perspective. This should include both their ability to connect and motivate, as well as the availability of information that fosters knowledge creation. The rapid expansion of universities and other higher education institutions around the world in recent decades has been followed by growing scrutiny of their role in knowledge production and regional development (Harrison, Tourok, 2017). Fortunately, universities have much to offer since knowledge and human capital now constitute crucial drivers of prosperity, inclusion and territorial development.

A pivotal development is the establishment of scientific research center of Gorenjska region (SCRG), whether it evolves from an existing academic base or is newly founded, which collaborates with educational, government and industry to create a supportive infrastructure for business formation and regional growth. The basic tasks of SCRG facilitate knowledge by connecting academia with industry, the center will promote the transfer of knowledge and technologies that can lead to practical applications; support startups and innovation; and enhance educational programs. Collaborations with universities will ensure that educational programs align with market needs, preparing a skilled workforce for the future.

Interpersonal communication is important, which simultaneously enables sharing and creation of new knowledge, innovation (processes, products and services) and competitiveness. comprehensive understanding of new path development. comprehensive understanding of new path development. Hassink, Isaksen and Trippl (2019) argue that (1) a multi-actor approach which due attention to the critical role played by agency at different levels; (2) a multi-scalar view that takes non-local sources and influences on new industrial paths seriously; (3) the integration of expectations and visions in analyses of new regional growth paths to acknowledge that not only the past but also the future can shape their development; and (4) broader conceptualizations of inter-path relations and dependencies. Multidisciplinary cooperation contributes to holistic development.

Trippl, Grillitsch, and Isaksen (2017) argue that the required knowledge for new path development can potentially be accessed from extra-regional sources. Evidence suggests that the combination of regional and international knowledge networks is conducive for firm innovativeness (Tödtling and Grillitsch, 2015). The extent that firms develop global linkages depends, on the one hand, on firm characteristics (Herstad et al., 2014) and, on the other hand, on the position of the region in global production and innovation networks. Global linkages may provide opportunities in terms of accessing complementary knowledge or compensating for a lack of knowledge available regionally (Grillitsch, Staurata, 2020).

Over time, these efforts lead to a self-sustaining process, where institutions and government gradually step back as industry takes the lead, resulting in the continuous creation of new companies.

The results allow a better understanding of the development dynamics, proactive actions, knowledge creation and firm performance in a dynamic and competitive environment. Results help to improve the knowledge and the research gap. Finally, this study contributes to integrate the domains of entrepreneurial orientation and knowledge management research.

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FOREIGN TRADE CONVERGENCE IN THE EU – THE EVIDENCE BY CEEC

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Abstract

One of the most important criteria for economic cohesion in the EU is the level of convergence achieved in the export specialization of the different Member States. To determine the degree of this convergence we have analysed the changes of export specialisation of 11 Central and Eastern European Countries (CEEC). There are EU Member States which joined the EU in 2004 – Poland, Check Republic, Hungary, Slovakia, Slovenia, Latvia, Lithuania and Estonia), in 2007- Romania and Bulgaria and in 2013 – Croatia. The export specialisation of these Member States was measured in four different years: 2004, 2014, 2019 and 2022. The results show that in all new Member States there is a clear trend towards convergence with the EU average in terms of export specialization. This is also a evidence for growing economic cohesion in the EU. However, the convergence process proceeds at different speeds in different countries. The convergence process is significantly more pronounced in Slovenia, Check Republic, Slovakia than in the Baltic republics and in Bulgaria.

Key words: export specialisation, economic cohesion, European integration, CEEC integration in the EU, Bulgaria in the EU

JEL: F14, F15

Introduction

In 2012, in the Economic Alternatives magazine, was published an article in which the convergence of the export specialization of Bulgaria, Romania, Hungary and Slovakia with the average export specialization of the EU was studied for the period 2003 – 2010. The conclusion was that after Bulgaria's accession to the EU, there was a change of the country's export specialisation towards the average of the union, in other words a convergence was started. Another conclusion was that this process was not an accidental one, but a common thing for all the four countries analysed. Furthermore, there was a difference in the level of convergence, it was stronger in the countries from the first wave of the accession Hungary and Slovakia compared to the countries which later joined the EU – Bulgaria and Romania. Therefore, a conclusion was finally drawn that approximation in export specialisation is an objective process, which however can develop on different space in different new member states (Hadjinikolov, 2012, p. 44).

Now, twelve years later, it is interesting to find out whether these conclusions are still correct and if they cover not only in 2012 analysed four countries but also the rest

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of CEES, which joined the EU. moreover, it is of interest to know at what speed the processes take place in the individual CEES and what is the impact of the differences in trade convergence on economic growth. The hypothesis is that the said convergence in export specialization covers all CEES and that the higher level of trade convergence has a positive impact on GDP dynamics.

Discussion

The eleven Central and Eastern European countries that joined the EU between 2003 and 2013 were emerging economies, unlike the old EU member states, which were developed economies. Then, as now, most economists believe that emerging economies were better off pursuing a policy of diversifying their exports rather than engaging in some narrow export specialization. For example, based on an empirical model studying growth factors in a group of Latin American and Asian emerging economies, it is found that „…export diversification is indeed associated with higher economic growth.“ (Agosin, 2009, p. 130). A UN study based on the experience of a group of African countries reached the same conclusion, but in a much more categorical form. It is emphasized there that „…significance of the link between export diversification and economic growth…cannot be gainsaid.“ (UNCAD, 2008, p. 150). Many more similar studies defending the thesis of the need for export diversification could be listed, all of them, as a rule, being based on Ricardo's traditional theory of comparative advantages in trade related to differences in the prices of production factors in individual countries. Transferred to European economic integration, this approach, based on cross-industry specialization, would mean that capital-intensive industries would be concentrated in the developed part of the union, and labour-intensive ones, respectively, in its periphery.

Myrdal and his follows adhering to the concept of the cumulative cause-and-effect relationship in the development within the national economy, respectively of the European economy, can also be counted among the supporters of the thesis of the existence of a „core-periphery“ economic division in the EU. Myrdal believes that the desire to increase returns from the scale of production leads to the concentration of economic activity in the regions that were first able to industrialize (economic center). There is a „cumulation“ of growth, i.e. refinancing, which leads to even greater concentration of production and income, i.e. a „cumulative causality“ of development occurs. The economic center also has other advantages: central location (good connectivity with other regions, lower transport costs), as well as proximity to the political center, which in turn reduces administrative costs. Thus, economically developed regions of countries are increasingly separated from the periphery (Myrdal, 1957).

Another group of economists, however, consider that the tendency towards equalization of prices of factors of production on an international scale, as well as the increasing importance of the export of capital, create the conditions for a new type of trade specialization based on intra-industry rather than inter-industry specialization. The so-called spillover effect in technology has a significant positive impact on growth and inclusion of developing countries in modern intra-industry specialization (Seck, 2012). In the EU, the spillover effect is mainly supported by the intra-Community movement of capital, which is in the direction from the technologically advanced north and west to the more backward countries in the south and east of the union. This process also leads to an increase in intra-industry trade between member states at the expense of traditional trade based on inter-industry specialization.

The research of some authors, mainly from the new EU Member States, can be cited as evidence in this direction of analysis. For example, such evidence for a new intra-industry specialization in the EU is the emergency of a specialisation in the financial and business services in the Visegrad Four – Poland, Hungary, Czeck Republic and Slovakia (Stefaniak-Kopoboru & Kuczewska, 2016). In Lithuania, on the other hand, a growth of intra-industry specialization is observed, which reflects in the sectoral structure of country exports (Bernatonyte, 2009). Romanian researchers are even more categorical in their conclusion in favour of the trade convergence in the EU. According to them, the point of view of the so-called a new economic geography, according to which the integration process in the EU should lead to different specializations of the core (the old 15 member states) and of the periphery – the new member states from Central and Eastern Europe is wrong. In fact, we have a common perspective of all EU member states (Pascariu, Drăgan, Stăngaciu, 2019).

Another question which needs some discussion is about the impact of trade convergence on the EU integration and especially on the economic cohesion in the union. The widespread approach is to consider the reduction of differences and the achievement of greater convergence as part of economic cohesion. We can see this approach in Article 174 of the Consolidated version of the Treaty on the Functioning of the European Union (European Union, 2012, p. 127). Most authors use the GDP per capita as main indicator of economic and social differences among regions and member states and consider reduction of these differences as increase of cohesion (Bal-Domańska, Sobczak, 2016). Some authors use more complex models to tackle cohesion like the structural equation modelling (SEM) (Maucorps, Jestl, Römisch, 2020), or the Markov chain method (Begu, 2011). Even more sophisticated model is the regression-discontinuity design model (RDD) (Becker, Egger, von Ehrlich, 2013). Regardless of how complex the models are, they follow the same goal – to find out and assess the reduction or increase of differences between regions or member states, in other words to find out if level of cohesion has increased or declined.

Using this approach to convergence, we can assume that decreasing differences in the structure of foreign trade between EU member states is a sign of increasing economic cohesion, and conversely, increasing differences in exports structure, is a sign of decreasing economic cohesion in the EU.

Methodology

The first step in achieving the research objective is to determine export specialization of CEES in different years. For this purpose, it is used the so-called Balassa index, or Revealed Comparative Advantage, RCA:

$$ES_{ij} = \frac{\frac{X_{ij}}{X_{wj}}}{\frac{M_{ij}}{M_{wj}}} \qquad (1)$$

Where ES_{ij} is the exports specialization or foreign trade specialization of a country i with respect to some commodity or commodity group j; X_{ij} are the total exports of country i by commodity group j; respectively, X_{wj} are the world exports for the same commodity group j; M_{wj} are country's imports of commodity group j and M_{wj} are world imports of the same commodity group j.

To apply the indicated index, we must first define the relevant commodity groups, in such a way as to obtain the needed statistical information, using the Standard International Trade Classification – SITC. At the same time, it is important that the commodity groups used for the calculations are sufficiently homogeneous and that they are presented for the relevant sectors of the EU economy. Based on the stated conditions, the following 8 commodity groups were determined:

1. „Agricultural commodities“ (SITC sections 0, 1 and 2 without divisions 27 and 28).
2. „Minerals“ (SITC divisions 27, 28 and 68).
3. „Fuels“ (SITC section 3).
4. „Iron and steel“ (SITC division 67).
5. „Chemicals“ (SITC section 5).
6. „Machinery and transport equipment“ (SITC section 7).
7. „Textiles and clothing“ (SITC divisions 65 and 84).
8. „Other manufactured goods“ (SITC section 6 without divisions 65, 67 and 68 and section 8 without division 84) (Unatid Nations, 2006).

The next step in the analysis is to calculate the total deviation in the export specialisation of each country comperated to the EU mean aberage. For this purpose, we use the following formula:

$$S_n = \sum_{i=8} (\overline{x_i} - x_{ni}) \qquad (2)$$

Where S_n is the total deviation of country n from EU mean average in export specialization, x_i is the EU export specialization index in commodity group i and x_{ni} is the absolute value of the export specialization index of country n in the same commodity group i.

Further the weighted average of the total deviation of all 11 CEEC countries in 2004, 2014, 2019 and 2022 was calculated. The national deviation of each country was weighed by its share in CEEC exports. The formula is:

$$S_{CEEC} = \underset{n=11}{} S_n * \frac{E_n}{E_{CEEC}} \tag{3}$$

Where S_{CEEC} is the CEES total deviation of EU export specialisation, S_n is the county's deviation, E_n is the counties exports and E_{CEEC} EU exports in the respective year.

Finaly, the dynamics of changes in individual CEEC are compared for the considered period 2004 – 2022.

Findings

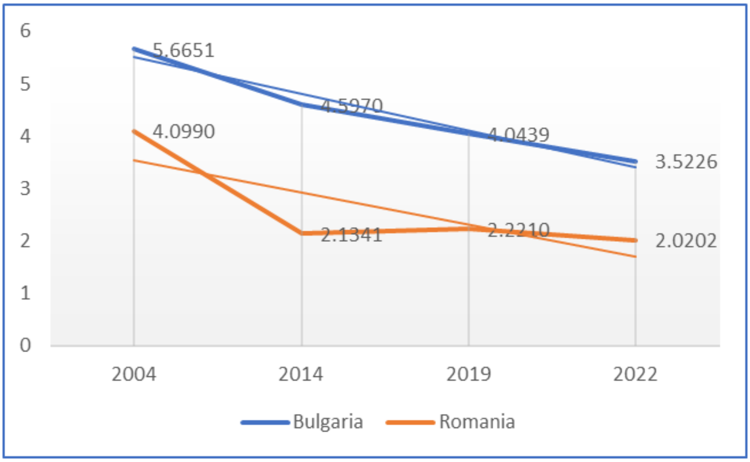
Based on formulas 1 and 2, the results shown in table 1 were estimated.

Table 1. Deviation in export specialisation of individual EU member states compared to the EU mean average export specialisation in the respective year

Country	Total deviation in export specialisation (S_n)			
	2004	2014	2019	2022
Bulgaria	5,6651	4,5970	4,0439	3,5226
Croatia	3,7869	3,3401	3,3120	2,9908
Czech Republic	1,6025	1,8754	2,1489	1,9262
Estonia	2,8214	3,2178	3,0398	2,9252
Hungary	2,0565	1,7885	1,8940	1,9379
Latvia	3,7884	3,0217	2,4192	2,6328
Lithuania	3,9867	2,6172	2,4229	2,3511
Poland	2,3939	2,5329	2,3037	2,0033
Romania	4,0990	2,1341	2,2210	2,0202
Slovak Republic	2,7146	1,9431	1,9164	1,9750
Slovenia	2,0808	1,0006	0,9628	1,1284

Source: Calculated by the author with data of WTO.

It would be interesting to follow the dynamics of rapprochement with the EU's export specialization of two countries that joined the EU at the same time and have a similar structure of the economy and degree of development – Bulgaria and Romania. The comparison is evident from the figure below.



Source: Compiled by the author with data from Table 1.

Fig. 1. Dynamics of the indicator S_n and the corresponding trend by Bulgaria and Romania

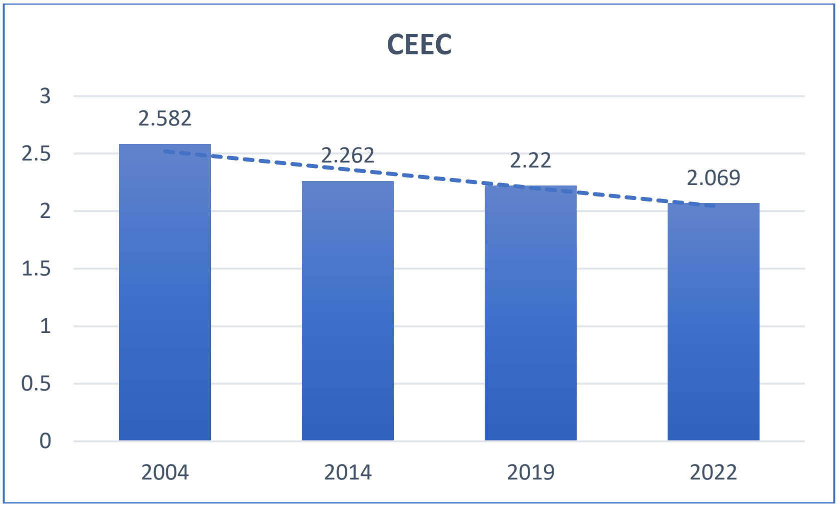
To proceed further to the calculation of aggregated results for CEEC in the EU, it is necessary to determine the relative weights of each of them, i.e. their share in the total exports of this group of countries. Again, WTO trade statistics can be used for this purpose (World Trade Organization, 2024). Thus, and using the data from Table 1, we obtain the result shown in Table 2.

Table 2. Deviation in export specialisation of individual EU member states compared to the EU mean average export specialisation in the respective year

Country	**Weighted S_n**			
	2004	**2014**	**2019**	**2022**
Bulgaria	0,208	0,182	0,155	0,152
Croatia	0,140	0,076	0,081	0,083
Czech Republic	0,335	0,384	0,439	0,368
Estonia	0,061	0,069	0,056	0,057
Hungary	0,360	0,240	0,250	0,244
Latvia	0,063	0,061	0,045	0,056
Lithuania	0,130	0,109	0,090	0,095
Poland	0,594	0,699	0,662	0,593
Romania	0,347	0,196	0,208	0,185
Slovak Republic	0,236	0,203	0,186	0,174
Slovenia	0,107	0,044	0,046	0,063
CEEC	**2,582**	**2,262**	**2,220**	**2,069**

Source: Calculated by the author with data of Table 1 and WTO.

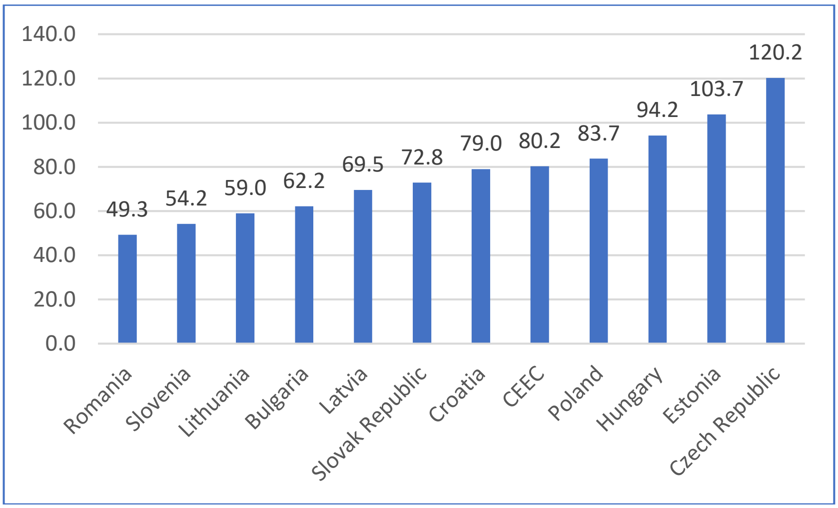
To get a clearer picture of the foreign trade convergence of CEEC in the EU the following figure can be used.



Source: Compiled by the author with data from Table 2.

Fig. 2. Dynamics of the indicator S_n and the corresponding trend by CEEC

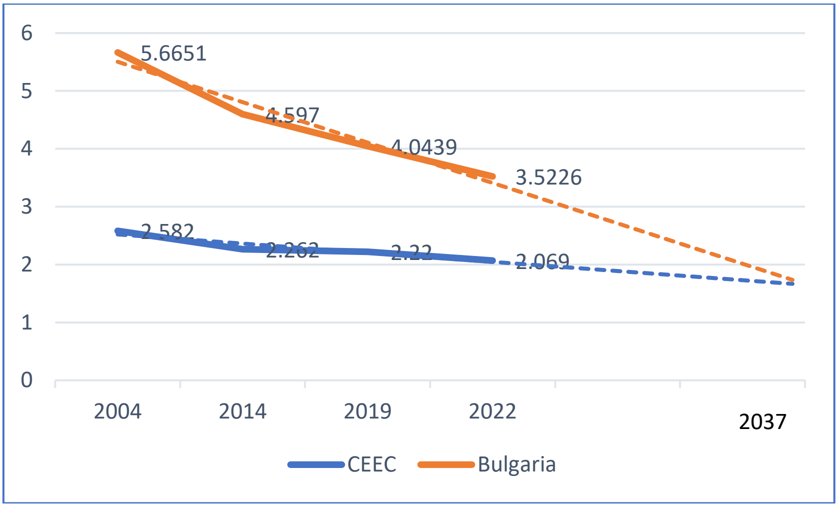
We can compare the dynamics of indicator S_n in different member states and the CEEC average.



Source: Compiled by the author with data from Table 1.

Fig. 3. Dynamics of the indicator S_n in CEEC for the period 2004 – 2022 (S_n in 2004 = 100).

Finaly, we can compare also the dynamics of indicator S_n only for Bulgaria and the CEEC average and forecast the point of full convergence between them.



Source: Compiled by the author with data from Table 1 and Table 2.

Fig. 4. Dynamics of the indicator S_n and the corresponding trend by Bulgaria and CEEC

Conclusions

1. The first and most important conclusion that can be drawn is that during the considered period 2004-2022 there is a convergence in the export specialization of CEE and the export specialization of the EU as an average value for the union. For the specified period, the CEEC total deviation in export specialisation compared to EU mean average in this indicator has decreased from 2,582 to 2,069 (Fig. 2). The achieved foreign trade convergence can be seen as a sign of the strengthening economic cohesion in the EU (Hadjinikolov, 2022).
2. Assessing the impact of the Covid-19 pandemic in the EU, we can state that there is a certain delay in foreign trade convergence related to the pandemic, but it has not significantly changed the trend of reducing disparities between CEES and the EU as an average.
3. Although there is convergence in export specialization in all countries of the studied group, the parameters of this convergence are quite different in the different member countries. As can be seen from table 2, in 2022 the foreign trade convergence was most pronounced in Slovenia, whose export structure differs too little from the EU average (S_n = 1,1284). The Czech Republic, Hungary and Slovak Republics also have very good results on this indicator with S_n = 1,9262, 1,9379 and 1,9750 respectively. The least expressed foreign trade convergence is in Bulgaria (S_n = 3,5226), Croatia (S_n = 2,9908) and Estonia (S_n = 2,9252).

4. Of interest is the comparison of the dynamics of the foreign trade convergence with the EU average of Bulgaria and Romania, two countries that simultaneously joined the EU on January 1, 2007. As can be seen from fig. 1 the trend in the development of this indicator in both countries is almost the same and the differences in S_n 2022 can be explained mostly by the presence of the same differences at the beginning of the considered period.

5. If we look at the dynamic of convergence process in export specialization by comparing the results in 2022 with the baseline in 2004 (Fig. 3) we can find out that the foreign trade convergence was faster in Romania, Slovenia, Lithuania and Bulgaria compared to Poland, Hungary, Estonia and the Czech Republic.

6. Finally, we can make a forecast about the future dynamic of Bulgaria's foreign trade convergence with the CEEC average and say that, based on the extrapolation of the trend, the full convergence will happen in approximately 13 years.

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COMPARATIVE ANALYSIS OF EU AND BRICS – ARE THEY REAL RIVALS IN THE CURRENT GEOPOLITICAL CONTEXT?

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Abstract

The last decades marked an increased geoeconomic competition between global trade blocs and geoeconomic actors. The European Union (EU) and BRICS have been among the most important actors in the evolving international context and in the process of deepening the existing global rivalries. Both blocs are similar in their quest for global influence. However, they differ in terms of their political nature, level of economic integration, geographical coherence and decision-making processes. This paper seeks to provide an analysis of the political-institutional structures, global competitiveness, and economic effectiveness of the EU and the BRICS as geoeconomic actors. By building on existing studies of political actorness, and by examining key indicators of rule of law quality, levels of corruption, innovation, economic freedom, social progress, this article identifies the specificities inherent in each bloc's approach to geoeconomic dominance. The paper argues that there is a significant level of rivalry between the two blocs and, while both have their own challenges, the EU is more likely to successfully deal with the complexities of the global economy, although BRICS are becoming increasingly assertive, which makes the competition between the blocs much more complex than it is traditionally assumed.

Keywords: geoeconomics, currency stability, global rivalry, geopolitical competition
JEL: F 30

1. Introduction

The European Union (EU) is usually considered as the most developed integration project among independent countries. It is also conceived as a model for other regional integration projects that aim to establish a single market or a single currency. The euro is already to a great extent the single currency of the EU – 20 out of the EU-27 already

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The current paper is mutual work between the two authors. Kaloyan Simeonov has prepared sections 1, 4, 5 and Branimir Stanimirov has prepared sections 2, 3 and 6.

use the euro. It is also the second most important currency in global trade, economic, foreign exchange and financial markets.

At the same time, BRICS' global influence over the last several years has risen considerably. Using the first letters of its founding member states as an abbreviation for its name, which stands for Brazil, Russia, India, China, and South Africa, the establishment of the organisation is usually considered to be in 2009 when four country leaders (Brazil, Russia, India and China) met for the first time.[1] South Africa joined the organisation in 2010. The next enlargement took place only recently – on 1 January 2024 Iran, Egypt, Ethiopia and the United Arab Emirates joined the organisation. BRICS this time did not change its name, but only added „+" to the abbreviation. Furthermore, according to the organisation currently more than 40 countries applied for membership or expressed some interest to apply or to coordinate more tightly their national policies with BRICS. These countries are all developing nations and are mainly from Africa, Asia and the Americas. However, Europe is also not an exception. Belarus, for instance, as a close ally of Russia, could not be excluded as a potential new member.

In 2024 there was also another major surprise as regards the growing BRICS influence. Turkey has expressed a strong interest to apply for membership in the organisation. This might be the first NATO country to apply for entering an organisation that is strongly influenced by Russia as well as the first European country to try to join that bloc after the Russian invasion in Ukraine. The paradox is even greater because of the fact that Turkey is also a candidate for EU membership. The EU institutions already expressed their position that EU and BRICS memberships are mutually exclusive. Turkey that has customs union with the EU and other trade and economic agreements with that bloc shall abrogate or amend them before possible BRICS membership. Contrary to the EU institutions, the Turkish President Erdogan is on the opinion that both EU and BRICS integration processes may go hand in hand. However, in practice this is very unlikely.

Serbia, the biggest country from Western Balkans, has strong economic and political links with Russia and China, both of them not recognising Kosovo. Therefore, voices are growing that Serbia may also step down its prolonged and currently unsuccessful EU bid in order to join the BRICS bloc (Hamid, 2024). Last but not least, one of the Bulgarian nationalistic parties represented in the National Assembly also defended a strong collaboration with BRICS. They even insisted on working for a possible membership in BRICS as an alternative to the EU membership.

The authors of the current paper do not find sufficient evidence in support of BRICS as an alternative. However, the above cited recent facts provoked them to start a research that makes a comparison between the EU and BRICS. The main research question is the following: *Are the EU and BRICS real rivals in the current global political, trade and economic arena?* In order to respond to that and some other questions, the

[1] Some sources list the establishment of BRIC, later BRICS, back in 2006 when several other meetings were initiated. However, the most realistic year of establishment is 2009.

current paper makes comparative analyses between the two organisations and traces the extent of their international cooperation and rivalry.

After this introductory section, the next one provides a review of the relevant literature pertaining to the global economic rivalry, the geopolitical actorness, and the complicated international relationship of the EU and BRICS. The third and the fourth sections summarise respectively the levels of political and economic integration in the EU and BRICS and attempts to trace the main similarities and differences between the organisations. The fifth section makes comparison in the EU and BRICS member countries through the analysis of some global indicators. The last section summarises the main findings of the study and draws some conclusions.

2. Literature review: EU, BRICS, and political actorness

The important shifts and trends in global politics in the last decades stimulated the generation of a number of academic works which explored the relations between the EU and BRICS and the two blocs geoeconomic actorness, their use of various instruments aimed at achieving global economic dominance (Keukeleire and Bruyninckx, 2011; Scholvin and Wigell, 2018; Maslova and Entin, 2019; Danzman and Meunier, 2024; Quaglia and Verdun, 2024). Various analyses reinvestigated the concept of geoeconomics and found, building on classical accounts, such Edward Luttwak's (1990), that economic instruments have a growing importance in global power politics (Scholvin and Wigell, 2018), which is in essence what the concept of the geoeconomics is about. According to these contentions the term „geoeconomics" has multiple interpretations and could be adequately captured in theoretical terms only by drawing insights from different international relations theories (Ibid.).

Babić and Dixon (2022, p. 11), for instance, analysed the geoeconomic role of the EU in an ever-changing world, arguing that the organisation might be the „'missing third power", since it is the „single largest unified economic area in the world". Meunier and Nicolaidis (2019, p. 103) also asserted that the EU might be better equipped for dealing with the complex global geoeconomic situation than the existing analyses suggest, as it has the ability to attain shifts in the global balance of power through trade and to employ economic statecraft for competing with other regional powers in a situation in which existing multilateral institutions are less and less effective. Other authors also corroborated this situation by claiming that the EU's measures undertaken in 2019 and 2024 for dealing with unfair competition might achieve a more robust protection of its economic interests, although they are at an early stage of their development (Höra and Weiss, 2024, p. 4). Digging deeper in these processes, Quaglia and Verdun (2024) provided an apt account of the ways in which the EU „weaponised" its single market in the sector of financial services on at least three separate occasions, which is a response of evolving nature of the global geoeconomic landscape.

Danzman and Meunier (2024) investigated how the EU came to adopt „a panoply of innovative policy tools" which have important geopolitical influence, while officially dedicated to investment policies, thus showing an increasingly serious move by the EU in the direction of economic securitisation. In relation to this, Meunier and Nicolaidis (2019, p. 103) further argued that the politicisation of European trade and investment policy is not a novel phenomenon, but one that accompanied the concluding of international agreements for a long time. Additionally, they put the emphasis on the fact that the process of politicisation has turned into geopoliticisation that includes a „language of economic battlefields and trade warfare“ (Ibid.).

Early accounts also explored the BRICS bloc as an exchange network as regards legal matters, which includes collaboration regarding practices and policies and an analysis of the role of national constitutions for the BRICS internal economic relationships and the current gains the BRICS countries achieved globally. In doing this, the authors provide useful methodological remarks for the ways in which future comparative studies of the EU and BRICS should be conducted (Carducci and Bruno, 2014). In parallel with this, it was noted more recently that the BRICS became ever more focused on issues related to the reform of the international monetary system in order to increase the influence of emergent countries, many of which are members of the bloc (García Herrero, 2024, p. 5). However, various challenges for the bloc were pointed out as well. For instance, the BRICS became increasingly „China-centric with very little interaction among other BRICS members“, which might cause problems in terms of India’s reaction to these developments (García Herrero, 2024, p. 5).

Looking at the economic instruments employed by the EU and BRICS, Vahalík and Staníčková (2016) compared the two blocs as regards their international competitiveness by using factor and cluster analysis and found that BRICS managed to strengthen their presence in international trade, which generates pressures for the EU’s own efforts to retain a dominant position. Various authors also contended that the EU’s ability to act geopolitically vary significantly across different policy initiatives and is affected by a lack of alignment of various member states with common EU positions (Weinhardt, Mau, and Pohl, 2022).

Other early works, in a fashion similar to the task to which this paper is dedicated, explored the relationship of EU and BRICS and the challenges that latter posed for the former (Keukeleire and Bruyninckx, 2011). In doing this, they demonstrated that the EU was perceived at this moment as a „weak power“, which suggested the need for developing a new strategy (Ibid., p. 401). Scholars also sought to find out to what extent the EU and BRICS are „partners or rivals“ and contended that when it comes to international problems they have a relationship ridden with rivalries, while on the state level there is a more substantial interest in cooperative relationship (Maslova and Entin, 2019). It also suggested that a further institutionalisation and unification in the BRICS bloc is possible (Ibid.).

Building on these arguments, later analyses made the argument that the BRICS started to reinforce their institutional and political ties in the last more than ten years and explored how the EU tried to respond to these developments, rather unsuccessfully, by concluding strategic agreements with each of the bloc’s member countries

(Hooijmaaijers and Keukeleire, 2020). Further analyses also put an emphasis on this phenomenon and pointed out the strong re-orientation of the EU toward „geoeconomics“ and even talked of „geoeconomic revolution“ in Europe (Matthijs and Meunier, 2023).

These analyses point out several important tendencies which are explored in more detail in the next sections. First, they indicate the increased importance of geopolitics and geoeconomics overall and the attempts of the EU to respond to this ever more worrisome situation. Additionally, the review of the literature shows the increasingly assertive behaviour of the BRICS and the establishment of a closer cooperation among the members of the bloc. The next section looks at these problems in more detail, as it discusses the level of political integration in the EU and BRICS more closely.

3. Political integration in the EU and BRICS

The relationship between the EU and BRICS is inevitably conditioned by the level of political integration between the two blocs, their international rivalry and aspirations for dominance as regards the governance of the world economy and the international monetary system. In order to explore the state of the art in this respect, this section sheds light on the level of political integration in the two blocs, as it looks at each entity in turn, and then compares them.

First, as regards the EU, it has to be pointed out that it is a closely integrated political union and represents a unique level of political integration in the world (see Table 2). The organisation has a sophisticated political system that is sui generis in the international realm and includes a supranational decision-making which allows for an efficient and democratic governance (Stone Sweet and Sandholtz, 1998). It possesses a common market and a supranational currency, which makes the EU a leading geoeconomic power. The EU member states, or at least most of them, have low levels of political corruption, strong records as regards the protection of human rights, and adequate limits on governmental powers (see Tables 1 and 3). Its range of supranational institutions also give to the organisation a unique international presence and makes it a dominant power in world affairs, despite the lack of state-like decision-making in the Union. The EU, due to the common history and legacies of its members, is also founded on a set of common values and norms, which bound its member states and predetermine the course of its external action that Ian Manners (2002) famously depicted as a „normative power“, i.e. an ability to set international standards regarding the „right thing to do“. Probably most importantly, the EU has federal aspirations and, at least nominally, pursues the achievement of federal union, which implies an ever-deeper political unity and a strengthening of the common policies among its member states, i.e. a further pooling of their sovereignty.

Table 1. Comparison of the EU and BRICS as regards the rule of law

Country	Income group	WJP Rule of Law Index: Over-all Score	Factor 1: Constraints on government powers	Factor 2: Absence of Corruption	Factor 3: Open Government	Factor 4: Fundamental Rights	Factor 5: Order and Security	Factor 6: Reg-ulatory Enforcement	Factor 7: Civil Jus-tice	Factor 8: Criminal Justice
Denmark	High	**0,90**	0,95	0,96	0,86	0,92	0,93	0,88	0,86	0,83
Finland	High	**0,87**	0,92	0,89	0,86	0,90	0,92	0,87	0,81	0,84
Sweden	High	**0,85**	0,86	0,90	0,84	0,87	0,92	0,83	0,82	0,79
Luxembourg	High	**0,83**	0,82	0,85	0,82	0,85	0,95	0,87	0,78	0,73
Germany	High	**0,83**	0,86	0,82	0,79	0,86	0,89	0,84	0,83	0,78
Netherlands	High	**0,83**	0,85	0,87	0,83	0,84	0,85	0,85	0,84	0,74
Estonia	High	**0,82**	0,83	0,81	0,81	0,83	0,90	0,81	0,81	0,75
Ireland	High	**0,81**	0,83	0,82	0,79	0,82	0,95	0,82	0,73	0,72
Austria	High	**0,80**	0,84	0,80	0,70	0,84	0,91	0,80	0,74	0,79
Belgium	High	**0,78**	0,82	0,79	0,76	0,84	0,82	0,79	0,74	0,71
Lithuania	High	**0,77**	0,76	0,72	0,75	0,78	0,89	0,76	0,79	0,69
France	High	**0,73**	0,72	0,75	0,75	0,74	0,79	0,75	0,69	0,63
Latvia	High	**0,73**	0,71	0,68	0,72	0,77	0,86	0,71	0,69	0,68
Czechia	High	**0,73**	0,74	0,66	0,69	0,78	0,89	0,71	0,69	0,70
Spain	High	**0,72**	0,72	0,73	0,70	0,79	0,83	0,69	0,65	0,66
Slovenia	High	**0,69**	0,65	0,67	0,66	0,75	0,89	0,65	0,67	0,56
Portugal	High	**0,68**	0,76	0,71	0,64	0,76	0,78	0,60	0,65	0,56
Malta	High	**0,68**	0,64	0,68	0,64	0,74	0,91	0,59	0,60	0,63
Cyprus	High	**0,68**	0,66	0,65	0,60	0,72	0,81	0,66	0,62	0,68
Italy	High	**0,67**	0,71	0,65	0,63	0,73	0,75	0,64	0,58	0,64
Slovakia	High	**0,66**	0,67	0,53	0,69	0,73	0,90	0,62	0,55	0,58
Poland	High	**0,64**	0,53	0,72	0,58	0,61	0,86	0,63	0,61	0,58
Romania	High	**0,63**	0,61	0,56	0,63	0,67	0,83	0,59	0,63	0,52

Country	Income group	WJP Rule of Law Index: Over-all Score	Factor 1: Constraints on government powers	Factor 2: Absence of Corruption	Factor 3: Open Government	Factor 4: Fundamental Rights	Factor 5: Order and Security	Factor 6: Reg-ulatory Enforcement	Factor 7: Civil Jus-tice	Factor 8: Criminal Justice
Croatia	High	**0,61**	0,58	0,57	0,61	0,68	0,84	0,56	0,56	0,51
Greece	High	**0,61**	0,67	0,56	0,61	0,65	0,72	0,55	0,58	0,50
South Africa	Upper middle	**0,57**	0,62	0,47	0,62	0,63	0,60	0,52	0,59	0,50
United Emirates	High	**0,57**	0,78	0,34	0,45	0,91	0,70	0,66	0,68	0,64
Bulgaria	Upper middle	**0,56**	0,51	0,45	0,57	0,61	0,78	0,53	0,54	0,44
Hungary	High	**0,51**	0,37	0,50	0,45	0,55	0,90	0,45	0,45	0,45
Brazil	Upper middle	**0,49**	0,51	0,43	0,59	0,49	0,60	0,48	0,49	0,32
India	Lower middle	**0,49**	0,57	0,40	0,59	0,46	0,64	0,48	0,43	0,37
China	Upper middle	**0,47**	0,31	0,53	0,40	0,25	0,81	0,49	0,52	0,43
Russia	Upper middle	**0,44**	0,32	0,41	0,45	0,38	0,66	0,46	0,51	0,29
Iran	Lower middle	**0,39**	0,32	0,37	0,27	0,20	0,63	0,44	0,51	0,33
Ethiopia	Lower middle	**0,38**	0,35	0,44	0,31	0,30	0,53	0,36	0,42	0,35
Egypt	Lower middle	**0,35**	0,24	0,38	0,23	0,24	0,62	0,36	0,38	0,33

Source: The World Justice Project (WJP)

That said, in the last at least 10 years the Union experiences instances of democratic backsliding and erosion of the rule of law, although, as important international rankings indicate, the EU is still ahead of BRICS countries in this regard (see Table 1). Challenges appeared also globally as regards the Union's geopolitical standing and critics persistently complain of the weakness of the polity in an ever more challenging global political landscape. The Union is oftentimes unable to act swiftly due to national concerns which impede an adequate collective policy implementation (Höra and Weiss, 2024, p. 4). This harms its ability to react to impending crises and thus to adequately address the concerns of its citizens, which gives prominence to critical voices insisting on internal reforms.

In comparison to this analysis of the EU, the BRICS stands, first and foremost, as a strictly intergovernmental union, which does not include provisions for giving up the sovereign rights of its participants (see Table 2). In this sense, it represents a political platform of mainly economic dialogue with much more limited collaboration among its member states (Kirton and Larionova, 2022). This means that the bloc has a far lower level of political integration, which is also evident from a brief overview of the organisation's structure and characteristics. The organisation consists of countries with different structures of their economies, different political cultures and a lack of geographical proximity. According to international assessments, the bloc's member countries seem to be plagued by high levels of corruption (a situation much better in the EU, see Table 3), which hampers their international image in various ways. In the BRICS organisation also seem to exist various tensions among its different members due to the significant predominance of China (García Herrero, 2024). Despite the creation of a New Development Bank (NDB), the organisation did not create strong common institutions and a straightforward system of common decision-making. Russia's invasion of Ukraine also had important implications for the political integration in the BRICS bloc and partially impeded the deepening of the cooperation among its members, as most of them officially maintained neutrality (Rached and de Sá, 2024). The bloc also continued to suffer from problems related to the different interests and global aspirations of the nations composing it. Moreover, it always had more pragmatic attitudes directed toward the protection of their common economic and monetary interests on the international stage, which is in stark contrast with the value-laden EU legal provisions and political positions.

However, at least in the last ten years the BRICS reinforced its political cooperation, coordinated more closely their economies and thus increased their international assertiveness and presence. This led to an increase of their joint activities, declarations and actions as regards various international issues, such as different international conflicts. It also allowed for a stronger monetary collaboration and for a strengthened place of emerging economies in the international realm. Taken together, this process led to the acquiring of a more prominent place by BRICS in the global geoeconomic and political discussions in different fora, such as the UN. Thus, despite the important drawbacks for the bloc, such their weak rule of law and corruption records, as demonstrated by analyses of the **World Justice Project** and **Transparency International** (see Tables 1 and 3) in which the BRICS+ nations occupy lamentable positions, the organisation managed to achieve a rather important standing on the international arena.

Table 2. Comparison of the EU and BRICS as regards their level of political integration

	The EU-27	The BRICS bloc
Degree of political unity	High, advanced level of supranational integration	Loose intergovernmental cooperation, a non-interference principle
Reliance on common values	A legal framework (Art. 2 TEU) relying strongly on a set of values	Common interests of emerging economies
Common institutions	Supranational institutions with exclusive competences in certain policies	Intergovernmental bodies based on a non-interference principle
Decision-making process	Existence of qualified majority voting	Strictly intergovernmental mode of decision-making

Source: The authors.

Table 3. Comparison of the EU and BRICS as regards levels of corruption perceptions

Corruption Perceptions Index			
Rank (2023)	**Country**	**CPI score 2022**	**CPI score 2023**
1	Denmark	**90**	**90**
2	Finland	**87**	**87**
6	Sweden	**83**	**82**
8	Netherlands	**80**	**79**
9	Germany	**79**	**78**
9	Luxembourg	**77**	**78**
11	Ireland	**77**	**77**
12	Estonia	**74**	**76**
16	Belgium	**73**	**73**
20	France	**72**	**71**
20	Austria	**71**	**71**
26	United Arab Emirates	**67**	**68**
34	Lithuania	**62**	**61**
34	Portugal	**62**	**61**
36	Spain	**60**	**60**
36	Latvia	**59**	**60**
41	Czechia	**56**	**57**

Corruption Perceptions Index			
Rank (2023)	**Country**	**CPI score 2022**	**CPI score 2023**
42	Italy	**56**	**56**
42	Slovenia	**56**	**56**
47	Poland	**55**	**54**
47	Slovakia	**53**	**54**
49	Cyprus	**52**	**53**
53	Saudi Arabia	**51**	**52**
55	Malta	**51**	**51**
57	Croatia	**50**	**50**
59	Greece	**52**	**49**
63	Romania	**46**	**46**
67	Bulgaria	**43**	**45**
76	China	**45**	**42**
76	Hungary	**42**	**42**
83	South Africa	**43**	**41**
93	India	**40**	**39**
98	Ethiopia	**38**	**37**
104	Brazil	**38**	**36**
108	Egypt	**30**	**35**
141	Russia	**28**	**26**
149	Iran	**25**	**24**

Source: Transparency International (the total countries that are ranked are 180).

Overall, this means that the comparison of the two blocs is indicative of differing levels of political integration between the EU and BRICS. While both blocs had their comparative (dis)advantages in the international realm, our analysis demonstrates that the EU continues to manifest a more integrated and robust political integration than BRICS, expressed in its strong political institutions, unique supranational character, and its democratic character, which are all less prominent in the case of BRICS. Despite that, careful exploration points to a tendency of a growing and ever closer collaboration among the members of the BRICS, along with the persisting of challenges faced by the EU. As for the interaction between the blocs, the analysis shows a rather limited level of political dialogue, which is indicative of patterns of competition between them. This means that in a situation of an ever more „weaponised interdependence“, the geoeconomic relations are shifting with both the EU and (members of) BRICS capable of benefiting from the complexity of the new global modes of cooperation and rivalry (Darie, Miron, and Ciurea, 2024).

4. Level of economic integration in the EU and BRICS

Analysing the level of economic integration and some closely related factors among the member countries provides for some interesting conclusions for the two blocs. The majority of the economic and related factors are in favour of the EU-27. However, there are some factors that might be creating a favourable momentum in international context for the influence of the BRICS. Below we analyse first the importance of the economic factors that are in favour to the EU and its 27 Member States.

Table 4. Factors that provide advantages to the European Union

Factor	EU-27	BRICS
Single market	A developed single market.	Lack of real single market integration.
Single currency	Enlargement of the Euro area. The euro is the second strongest currency in the world.	There are some statements about establishing a common BRICS currency, but plans are on an infant stage.
Common policies	The EU has many common policies in which it has exclusive or shared competences with its member states.	BRICS try to have common initiatives, but it does not have common supranational policies.
Common budget (financial solidarity)	Although the EU budget is not more than 1% of EU GDP, it comprises a substantial solidarity mechanism.	The budgetary capabilities of the organisation are quite modest.
Convergence and cohesion among member countries	Except in time of crises, there is a strong cohesion among member countries.	Important divergences between member countries that may increase with future BRICS enlargements.
Geographical proximity	Geographical proximity in one region.	Member countries are geographically dispersed throughout the world.
Global standard setter	The EU sets global standards.	BRICS countries are usually not standard setters.

Source: The authors.

The EU has an integrated *single market* that comprises a common area where free movement of goods, services, people and capital is ensured. The fifth freedom is considered to be the areas such as research, innovation and digital transformation. This market comprises thirty member states of the European Economic Area – the twenty-seven EU member states plus Norway, Iceland and Lichtenstein.

The *single currency* is also well established in the EU after 1999. Currently, twenty out of the EU-27 member states participate in the Euro Area. The last enlargement of the Area took place on 1 January 2023 when Croatia joined the monetary union. Other countries and territories in Europe use also the euro as a legal tender – these are Montenegro, Kosovo, Andorra, Monaco, San Marino and the Vatican. The Council of the EU lists the statistics that in addition to the 350 million people using the euro in the twenty Euro Area member states, globally there are around sixty countries and territories in the world with additional 175 million people that have fixed their currency to the euro (Council of the EU, 2024). The euro is the second most important and the second most used currency in the world in the trade, economic, foreign exchange and financial transactions (European Central Bank, 2024).

The EU has developed many *common policies* in which it has exclusive or shared competences with its member states. Such policies are common trade policy, common competition policy, common transport policy, common energy policy, common environmental policy, common consumer protection policy etc. The BRICS bloc did not develop such common policies for the moment and only has promoted some common initiatives. In parallel with this, the two blocs competed in important ways in relation to global trade and each of the two attempted to manifest a significant global dominance.

The BRICS do not provide for solidarity in terms of *budget* spending. In contrast, the EU has an important budget that reallocates each year financial resources for cohesion and other policies. For the year 2024 the EU budget comprises 189.4 billion euro in commitments and 142.6 billion euro in payments (European Council, 2024).

The EU member countries are much more *convergent* and they experience a greater cohesion between themselves, compared to the BRICS countries. Furthermore, the EU spends a significant part of its budget in order to streamline the EU convergence efforts, which also have implications to the two blocs' global standings.

The *geographical proximity* of the EU member states facilitates further not only cohesion but also close economic and trade relations. In contrast, BRICS countries are dispersed all over the globe. A future BRICS enlargement will make the geographical and economic divergence in this organisation even greater.

The EU is *a global standard setter*. Only some examples, out of many others, are the standards that are developed in the EU in the area of environmental policy and green transition, the introduction of rules in relation to the Artificial Intelligence, data protection and other rules. The BRICS countries are usually not considered such standard setter.

When analysing the facts that are in favour of BRICS one shall admit that in recent years BRICS attracted substantial attention in global scene. The organisation is already seen by some politicians and analysts not only as a rival to the EU but even as an alternative, which suggests the existence of patterns of competition between the blocs. Some of the factors that currently are in favour of the new global player are listed in Table 4.

One of the advantages of the BRICS bloc is that currently the majority of their members experience higher economic growth than the members of the EU. The economic potential for these countries is quite large. They rely also on huge investment and infrastructure projects. Furthermore, the EU is losing influence and share in the global GDP compared to BRICS countries that gain further influence in recent years.

Table 5. Factors that brings potential for BRICS

Factor	EU-27	BRICS
Economic growth	The economic growth in the EU is usually slower than in BRICS countries	Fastest growing major economies with further economic potential
Growing global influence	Decreasing global economic influence compared to the world GDP	Increasing global economic influence compared to the world GDP
Population	Ageing of the population	Some of the most populated countries in the world are members in BRICS
Payment system	Based on SWIFT	Plans to establish an alternative payment system
Enlargement	The EU enlargement is currently less dynamic	BRICS enlargement is currently expanding. Future enlargements are planned
Contraction	Brexit in 2020	No withdrawals from BRICS are planned

Source: The authors.

In contrast to BRICS that are the among the most populated countries in the world, the population in the EU is aging, i.e.it experiences substantial demographic problems. Furthermore, the EU-27 with its 447 million citizens in 2021 represents only 5.7% of the world population. In contrast, China with its 1.43 billion citizens represents 18.0 % of the world population and India with its 1.41 billion citizens – 17.8 % of the world population (European Commission, 2023). These dynamics are influential in the interaction of the EU and BRICS and also show that a rivalry is the dominant mode in the organisations' relationship.

The current global payment system is largely dominated by the SWIFT standard. After the beginning of the Russian aggression towards Ukraine, many sanctions were introduced against Russia, including a limitation of the use of the SWIFT payment system. Therefore, Russia and some other countries started to develop and integrate new payment systems that will make them much more independent in their future economic and trade relations.

The *enlargement process* is one of the developments that currently look more prosperous for BRICS rather than for the EU. The enlargement has strong economic implications because it will create new market and economic opportunities among member countries. Few decades ago, during the EU enlargement towards Central and Eastern Europe, the enlargement policy of the EU was considered as the most successful EU policy. This is already not the case. The enlargement fatigue among current EU

Member States, the stagnation in the EU accession negotiations with the Western Balkan countries[1] and Turkey makes the current EU enlargement process rather difficult. The postponement of the EU accession of Western Balkans countries increases the influence of other global players in that region (Tcherneva, 2023). The recent declaration that Turkey may join BRICS and the reaction of the EU institutions that this may stop EU accession process is also remarkable (Euractiv, 2024).

The only factor that induce more dynamism in the EU enlargement process is the start of accession negotiations with Ukraine and Moldova. However, these developments currently bring more challenges and questions than opportunities taking also into account that the EU never had so far accession negotiations with a country actively engaged in a war. On the opposite direction, BRICS is attracting more and more attention from countries around the globe. The last accession with new members happened in the beginning of 2024 when Iran, Egypt, Ethiopia and United Arab Emirates joined the bloc.[2] Further accessions of BRICS are discussed and planned in the coming years.

In addition to the enlargement fatigue, the *contraction* process in the EU is also contrary to the BRICS expansion, and this process further fuels the competitive dynamics between the blocs. The EU, and its predecessors the European Communities, experienced for six decades an enlargement from the six founding Member States to the EU-28. However, in the beginning of 2020 the United Kingdom's withdrawal from the EU is the first contraction of the EU. This has strong negative implications not only for the United Kingdom, but also for EU-27. The United Kingdom was the second largest economy in the EU, a global player and a substantial trading partner. The London city is one of the most developed financial markets not only in Europe but also globally. Furthermore, there are always rumours that other EU Member States may follow and might withdraw from the EU. Currently, there are no such short-term prospects, but the challenges for further EU contraction are still present.

5. Some global indicators, EU and BRICS countries

In order to compare the two blocs, we will present also a short analysis of the ranking of their member countries in some of the global indicators and indexes. Currently, there are many global indexes that compare between 130-190 countries in the world. They have different characteristics and describe various developments in the countries

[1] Western Balkan countries are Serbia, Montenegro, Albania, Republic of North Macedonia, Bosnia and Herzegovina and Kosovo. The EU accession negotiations with some of these countries are under way for quite a long time as Serbia and Montenegro negotiate more than 10 years without substantial advancement. The real start of the accession negotiations with Albania and the Republic of North Macedonia was postponed on several occasions. After 2023 there is also some potential for a start of accession negotiations with Bosnia and Herzegovina. Taking into account that Kosovo is not recognised as an independent state by 5 EU Member States (Spain, Slovakia, Hungary, Greece and Cyprus), EU accession negotiations with Kosovo are not in the near horizon.

[2] The last EU accession happened on 1 July 2013 when Croatia joined the EU.

worldwide. It is interesting to see how the EU member states and the member countries of BRICS perform according to such indicators, which demonstrates the extent international struggle for dominance between the blocs.

The first index that we will analyse is **the Index of Economic Freedom**. This index is developed by the Heritage Foundation and checks to what decree the economic freedoms are protected in 184 countries in the world. The logic is that the more economic freedoms are protected, more prosperous will be the society. The index analyses 12 quantitative and qualitative factors in the following four categories: rule of law; government size, regulatory efficiency and open markets. The score of the index is between 0 and 100. The classification in 2024 is the 30th edition of the index. It is presented in Table 6.

The United Arab States is the only country from BRICS that performs relatively well in terms of the Index of Economic Freedom. South Africa with a result of 55.3 is ahead only of one EU-27 country – Greece with a result of 55.1. All the other BRICS countries – Brazil, India, Russia, Egypt, China, Ethiopia and Iran have a quite poorer performance in terms of economic freedom among the 184 countries in the world and especially compared to the EU-27 (Index of Economic Freedom, 2024). This fact might further increase the EU-BRICS rivalry, although this is by no means an automatic process.

Taking into account another global index, the **Social Progress Index**, the results for the BRICS countries are even worse. This index comprises the performance of 170 countries worldwide in 2023. It provides information on both social and environmental data. In fact, the Index makes an evaluation of 57 indicators in three separate fields – basic human needs; foundations of wellbeing and opportunities.

The Social Progress Index illustrates the information about the social wellbeing of the analysed countries. Considering the data provided in Table 7, one may easily identify that all BRICS members perform less successfully than any of the EU-27 Member States. In addition, the 27 EU Member States are among the 44 leading countries in the world in terms of social progress development (Social Progress Index, 2023). Respectively, this leads to increased ambitions of emerging countries and further international competition.

The next index that we include in our analysis is the **Global Innovation Index**. This is an index that is developed by the World Intellectual Property Organisation. The 2023 edition comprises 132 countries worldwide. This index measures the level of innovation in each of these countries.

Among the BRICS countries only China, the United Arab Emirates and India are relatively comparable to the EU-27 Member States. All the other countries – Brazil, Russia, South Africa, Iran, Egypt and Ethiopia, perform worst in terms of innovation than any of the 27 Member States of the European Union (World Intellectual Property Organisation, 2024).

Table 6. Index of Economic Freedom (IEF) 2024

Rank	Country	IEF
3	Ireland	82.6
5	Luxembourg	79.2
7	Denmark	77.8
8	Estonia	77.8
9	Sweden	77.5
11	Netherlands	77.3
12	Finland	76.3
15	Lithuania	72.9
17	Cyprus	72.2
18	Germany	72.1
20	Latvia	71.5
22	UAE	71.1
24	Czech Republic	70.2
29	Portugal	68.7
31	Bulgaria	68.5
33	Austria	68.4
35	Slovakia	68.1
39	Croatia	67.2
42	Poland	66.0
44	Slovenia	65.9
46	Belgium	65.6
50	Malta	64.5
51	Romania	64.4
55	Span	63.3
62	France	62.5
72	Hungary	61.2
81	Italy	60.1
111	South Africa	55.3
113	Greece	55.1
124	Brazil	53.2
126	India	52.9
131	Russia	52.0
146	Egypt	49.7
151	China	48.5
156	Ethiopia	47.9
169	Iran	41.2

Table 7. Social Progress Index (SPI) 2023

Rank	Country	SPI
1	Denmark	90.38
3	Finland	89.96
5	Sweden	89.09
7	Luxembourg	87.86
9	Netherlands	87.73
10	Germany	87.64
11	Austria	86.73
12	Ireland	86.57
13	Belgium	86.13
18	Estonia	85.17
19	Czech Republic	84.82
20	Slovenia	84.60
23	Portugal	84.10
24	France	83.88
25	Spain	83.87
26.	Italy	83.61
27	Malta	82.68
28	Cyprus	81.88
31	Lithuania	81.51
32	Latvia	81.12
33	Croatia	80.25
34	Greece	80.09
35	Slovakia	79.54
36	Poland	79.53
40	Hungary	77.47
43	Bulgaria	76.25
44	Romania	75.24
51	UAE	72.92
67	Brazil	68.90
76	Russia	67.68
77	China	67.61
82	South Africa	66.69
105	Iran	60.30
108	Egypt	58.77
111	India	58.06
158	Ethiopia	43.33

Table 8. Global Innovation Index (GII) 2023

Rank	Country	GII
2	Sweden	64.2
6	Finland	61.2
7	Netherlands	60.4
8	Germany	58.8
9	Denmark	58.7
11	France	56.0
12	China	55.3
16	Estonia	53.4
18	Austria	53.2
21	Luxembourg	50.6
22	Ireland	50.4
23	Belgium	49.9
25	Malta	49.1
26	Italy	46.6
28	Cyprus	46.3
29	Spain	45.9
30	Portugal	44.9
31	Czech Republic	44.8
32	UAE	43.2
33	Slovenia	42.2
34	Lithuania	42.0
35	Hungary	41.3
37	Latvia	39.7
38	Bulgaria	39.0
40	India	38.1
41	Poland	37.7
42	Greece	37.5
44	Croatia	37.1
45	Slovakia	36.2
47	Romania	34.7
49	Brazil	33.6
51	Russia	33.3
59	South Africa	30.4
62	Iran	30.1
86	Egypt	24.2
125	Ethiopia	14.3

Legend*:*

EU Member State; BRICS Member State; UAE – United Arab Emirates

The first column of Table 6 shows the ranking of each country among the 184 countries in the 2024 edition of the IEF.
The first column of Table 7 shows the ranking of each country among the 170 countries in the 2023 edition of the SPI.
The first column of Table 8 shows the ranking of each country among the 132 countries in the 2023 edition of the GII.

Concluding this section, we shall confirm that the EU-27 Member States perform much better than the BRICS member countries. This is relevant for almost all global indexes and classifications. The EU Member States are better than the BRICS countries in performances such as the economic freedom, the social agenda and innovations. This conclusion is relevant also for other areas and policies.

6. Conclusion

The challenging context of global politics in the last several decades demonstrates that the future of international relations will be increasingly one of tensions between ever larger trade blocs. The EU and BRICS are at the forefront of this global competition, as each bloc compete for a bigger share of international trade, monetary dominance, larger investment flows and thus for a more important geoeconomic role on the world stage. While each camp had its own distinctive characteristics that helped it on its path toward increased global assertion, their numerous differences in terms of its decision-making process, institutional structures, and economic development predetermined the respective positions of the two blocs. This paper traced this situation in several ways, and by conducting a comparative analysis of a number of key indicators.

Concerning the EU, it explores its institutions, unique supranational polity, and economic performance and it makes several interconnected claims pertaining to its geoeconomic actorness and potential. The paper analyses the Union's geoeconomic potential, its strong global competitiveness and coherent decision-making which make it not only a powerful trade bloc, but also a powerful geoeconomic actor. This is demonstrated by the EU's ability to conduct a unique trade policy on the supranational level, to wield the economic power of a single currency and thus to assert a financial dominance on the world stage. It is argued that the coherent geographical structure, the political unity and structural economic homogeneity contributes to a stronger and more assertive position in global affairs.

As for the BRICS, this paper shows some of the strengths of the organisation, although its conclusions regarding the bloc have been somewhat more ambiguous. The analysis underlines some of the components of the organisation which make it an important actor in the global trade and economics, but also explored the deficiencies which undercut its power and capacity to play a more meaningful global role. In this respect, the analysis explores the various political problems which the bloc faces due to its diverse members and lack of a more centralised decision-making process, the important differences in its members' economies and the lack of geographic proximity.

In mixing these two perspectives, and in answering the central research question this text seeks to address, the paper demonstrates that while the EU and BRICS continue to interact in various ways and to collaborate on trade issues, their relations globally are still ridden with contradictions and are constantly on the verge of confrontation, which makes for a complex global geoeconomic arena. This is demonstrated by indicating the numerous points of rivalry such as the two blocs' competition in global trade, their confrontation on currency issues, as well as on geopolitical and social problems. Therefore, in the future, the shifting and evolving structure of the international economy and of monetary relations is likely to result in an ever more contradictory relationship between the two political blocs, one swinging and swerving between rivalry and cooperation, conflict and partnership.

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DIGITIZATION OF FARMS IN THE AGRICULTURAL SECTOR – STRATEGIC PRIORITY OF EUROPEAN POLITICS

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Abstract

Digital technologies are transforming the world at an unprecedented rate. The aim of the present research stems from the need for open science and open access to scientific results in the conditions of a single digital market. The unpredictable environment is a prerequisite for upgrading existing knowledge, creating new knowledge and introducing innovative modern practices to ensure the sustainability of the economy. Science, innovation and technology drive economic development. In search of solutions for turning knowledge into an economic result, attention is directed to digitalization of the economy, respectively the agrarian sector, in the context of markets, management and innovation in the knowledge economy.

Keywords: digitization, digital technologies, European policy, agricultural sector.

JEL: O13, O38

Introduction

Digital agriculture reflects the evolution of the sector from the introduction of precision agriculture to the implementation of smart networks and data management tools. The aim is to use available information and experience to automate activities and processes in the agricultural sector.

Data management is at the heart of what has emerged as a new type of management in agriculture. This makes the sector sustainable and competitive.

Digitization of the agricultural sector is a strategic priority in the conditions of the common European policy.

Digital farming – fundamentals

For the purposes of the present study, it is necessary to derive characteristics of some main productions:

Precision agriculture – technological management of land use, by measuring and accounting for differences between fields, respectively animals. It uses large data sets. If a corresponding algorithm is followed, the processes are robotic. Aerial imagery, sensors, weather forecasts and more are used.

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Smart agriculture optimizes the complex systems of agricultural production with the application of information technology. Its essence is expressed in the intelligent use of the collected information. Digital agriculture is expected to create significant added value from the application of data.

Digital agriculture unites the two concepts – precision agriculture and smart agriculture.

Digital agriculture is characterized as „the consistent application of precision farming and smart farming methods, internal and external networking and the use of web-based data platforms with big data analytics"(2020).

The development of the agricultural sector is supported by various categories of systems, applications and others, some of which are:

- *autonomous robots* for carrying out basic agricultural tasks – robotic systems, the so-called „robotic hand“ for farmers. The activities and processes in the farm are automated through laser photoidentification technologies.
- *drones and/or software-based technologies* for computer monitoring of crops and soils. 3D images enable data analysis and prediction. The person is only required to set a plan of work.
- *machine analytics* – models for tracking and predicting various impacts on the environment and yields, for example temperature, precipitation, wind speed, solar radiation and others. Artificial intelligence with the help of neural networks collects various data, analyzes them and creates specific conclusions based on them.
- *IoT sensors* – a network of smart devices. Sensors and image recognition technologies collect various data and metrics. They send updated information in real time. This makes it possible for farmers to make timely decisions (2021).

Extensive testing and application of emerging applications in the agricultural sector is essential as it is affected by environmental factors that cannot be controlled.

Evolution of the digital development of the agricultural sector

Digital agriculture is expected to create output value. In this connection, the stages (phases) of the sector's development are being followed (2017):

Agriculture 1.0 – known as the „manual era“. This stage covers the early years of the 20th century. This stage is characterized by hard physical work and low productivity. One third of the population is engaged in agricultural activity.

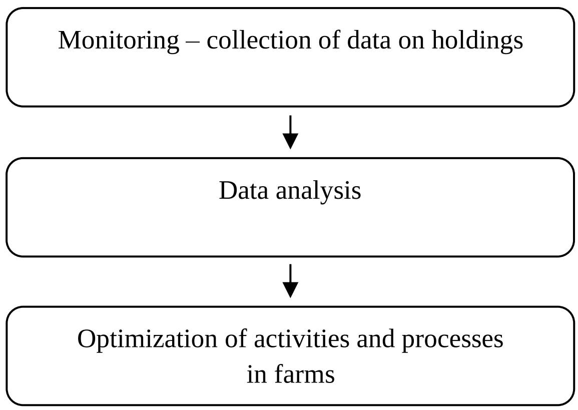
Agriculture 2.0 – this stage, known as the „green revolution“, covers the 1950s. With the so-called industrialization, new practices are introduced in production. By replacing manual labor with mechanized labor, production costs are reduced. With the use of nitrogen fertilizers and synthetic pesticides, yields are significantly increased.

Agriculture 3.0 – this stage spans the mid-1990s. GPS technology allowed the so-called „precision farming“ cost optimization. Improved accuracy of field operations and animal care.

Agriculture 4.0 – agriculture enters this stage around 2010 of the 21st century. Data transfer is automated. Smart technologies are being implemented. This stage sets the stage for the next evolution in the sector using unmanned operations and autonomous systems.

Agriculture 5.0 – a new stage in the development of the agricultural sector – a stage of artificial intelligence, robotics and total automation of production management. It is related to the priority implementation of the Internet of Things (IoT), artificial intelligence (AI) and big data analysis with an emphasis on reducing the impact on the environment.

Modern technologies combine smart devices with autonomous behavior and connectivity. This allows the conditional model display (Figure 1):



Source: Autor

Figure 1. A model of autonomous connectivity of modern technologies in farms

European rules and measures to regulate and support digitization in the agricultural sector

A modernized, competitive and sustainable agricultural sector requires the implementation of digital technologies.

In this direction, under the Common Agricultural Policy of the European Union, funds are provided for investments in the agricultural sector for:

• precision agriculture,
• information and communication technologies.
• purchasing digital technologies at every stage of the supply chain,
• consulting services in the field of digital aspects in agriculture and rural areas,
• digital skills training, exchange of experience using digital technologies (eg demonstration farms).

More than 274,000 farms are expected to be supported to adapt to modern digital technologies (European Union, 2024). For the successful absorption of funds, farmers need access to knowledge and training.

As of 2015, investments in digital technology reached $4.6 billion. The rapid rate of increase in world population requires increased production by 60% by 2030. (2020).

At the national level, in support of agricultural producers, the so-called Knowledge and innovation systems in agriculture (AKIS) (Ministry of Agriculture and Food, 2024):

- are a major source of information – Knowledge sharing and innovative applications are important. For this purpose, consultants must have access to the latest developments. This will allow upgrading of own interactive and digital skills. The consultants disseminate information about the results of the implemented projects.

- support the transition to digitalization in agriculture. In order to prevent the digital divide between farmers, consultants must help them navigate the modern digital world.

The digital transformation of an agricultural holding requires: consulting the farmer, acquiring digital skills from the farmer, testing the digital technology, realizing the investment.

Conclusion

In the conditions of climate change, agriculture requires new forms of production and efficiency – appropriate use of resources and care for the environment.

In conclusion, the evolution of agriculture from manual labor to high-tech practices is remarkable. Through real-time analytics, agriculture 5.0 offers a scenario for a more sustainable, efficient and productive food system. With autonomous and predictive decision-making, productivity gains and environmental impact reductions are expected in the future.

We can summarize that the future of agriculture depends on its digital transformation.

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EU-BRICS TRADE RELATIONS: TRENDS AND PERSPECTIVES

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Abstract

This paper analyses EU-BRICS trade and investment relations, highlighting significant trends, sectoral dependencies, and mutual economic implications. Using quantitative data from 2013 to 2023 and qualitative policy analysis, the research reveals challenges posed by dependency on BRICS economies and EU strategies for trade diversification. The paper identifies several key trends in EU-BRICS trade and investment relations: a chronic EU trade deficit with BRICS driven by sectoral dependencies in machinery and energy, alongside EU efforts to diversify energy sources, growing FDI flows into BRICS economies, and evolving geopolitical dynamics that shape mutual economic interdependence.

Key words: EU-BRICS trade, foreign direct investment, trade deficit, energy diversification, economic resilience

JEL: F13, F15, F21, F50

Introduction

The trade and investment relationship between the EU and the BRICS countries has become increasingly important in recent years. The BRICS group, consisting of Brazil, Russia, India, China and South Africa, has emerged as a significant player in the global economy, accounting for a significant share of the world's population, GDP, and trade (Duggan et al., 2021). As the global economic landscape continues to evolve, understanding the trends and prospects of EU-BRICS trade and investment relations is crucial for researchers, policymakers and business leaders. The trade between the EU and BRICS encompasses a wide range of sectors, and has shown resilience despite the global economic volatility (Jones & Martin, 2020).

The present research paper aims to examine the current state of EU-BRICS trade and investment relations, identify key trends, and explore the potential for future cooperation and growth. The analysis explores three primary questions: 1) What are the recent trends in EU-BRICS trade? 2) What opportunities and threats do these trends pose for the EU? 3) How do investments shape and influence the economic interdependence between these two economic blocs? Addressing these questions will provide a foundation for understanding the broader implications of the EU-BRICS trade relationship.

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This paper employs a combination of qualitative and quantitative methods, including statistical data analysis (with data from credible databases, such as the European Commission and Eurostat), and a review of the theoretical framework and existing literature concerning to the international trade theories and EU-BRICS trade and investment relations.

Literature Review

The economic relationship between the EU and BRICS countries has been the focus of numerous studies, which examine both the potential for cooperation and the challenges arising from diverse economic systems and trade policies. Theoretically, trade relations between emerging economies and established markets such as the EU can be understood through traditional models of comparative advantage and the newer frameworks of economic integration and globalization (Krugman, 2021). According to classical theories, emerging markets like those within BRICS have comparative advantages in resource-intensive sectors, while the EU has a competitive edge in technology and high-value goods (Ricardo, 1817). These frameworks have evolved, emphasizing not only resource and product specialization but also the complexities introduced by regulatory differences and geopolitical considerations (Bhagwati, 2019).

Nori and Mishra (2021) have applied a gravity model to quantify EU-BRICS trade flows, identifying key determinants such as economic size, market proximity, and recent geopolitical shifts. They find that EU remains a primary trading partner for BRICS, contributing substantially to both exports and imports, with a diversified sectoral focus that aligns with BRICS' comparative advantages in areas like manufacturing, minerals, and agriculture. Despite trade growth, they highlight challenges due to Brexit and the global financial crisis, which have affected the stability of trade flows (Nori & Mishra, 2021).

In addition to trade flows, foreign direct investment (FDI) has emerged as a significant factor in EU-BRICS economic relations. The literature suggests that investment from the EU into BRICS countries often targets sectors like infrastructure, manufacturing, and finance, contributing to the economic development of these countries while providing EU firms with new market opportunities (Dunning, 2018). Conversely, investment from BRICS into the EU is growing, particularly in technology and strategic industries, raising concerns about the influence of foreign ownership in critical sectors.

Hunya and Stöllinger (2009) provide a comprehensive analysis of FDI flows between the EU and BRICS, highlighting the EU as a leading investor in BRICS countries, especially in Brazil and Russia. They note that EU investments in BRICS are largely in manufacturing and services, sectors well-aligned with BRICS' development goals. Hunya and Stöllinger observe that FDI resilience in BRICS markets contrasts with other regions, suggesting that BRICS' large domestic markets offer strong incentives for EU investments even amid economic downturns (Hunya & Stöllinger, 2009).

The potential outcomes of further BRICS’ integration could have significant ramifications for the EU's economic and geopolitical standing. For example, Nach and Ncwadi (2024) discuss the potential and challenges of BRICS economic integration, noting that despite strong economic growth and increasing geopolitical power, BRICS nations face substantial policy coordination challenges due to structural and economic differences (Nach & Ncwadi, 2024). They argue that initiatives like the New Development Bank aim to promote greater financial cooperation and stability, underscoring BRICS' commitment to reshaping the global economic landscape toward a more multipolar order.

EU-BRICS trade

Trade volumes and balance in the period 2013 – 2023

The EU-BRICS trade balance has shown a consistent deficit for the EU, driven by the high import demand for machinery, mineral products, and miscellaneous manufactured goods from BRICS countries, primarily China and Russia. As of 2023, the total trade volume between the EU and BRICS amounted to €1,078.6 billion, with imports at €699.5 billion and exports at €379.1 billion. This resulted in a trade deficit of €320.3 billion, underscoring the EU's dependency on BRICS for certain high-demand products (European Commission, 2024).

Table 1. EU-BRICS Trade Balance (2013 – 2023)

Year	Imports (€ million)	Exports (€ million)	Balance (€ million)	Total Trade (€ million)
2013	510,184	338,417	-171,766	848,601
2018	587,950	363,426	-224,524	951,376
2023	699,484	379,147	-320,336	1,078,631

Source: European Commission, 2024

The data indicates a growing trade imbalance, especially from 2020 onward, primarily due to increased imports from China in machinery and technology-related sectors and from Russia in mineral fuels.

Sectoral Analysis of trade flows in 2023

In 2023 the EU imports from BRICS were heavily concentrated in machinery and transport equipment, mineral products, and manufactured goods. Machinery and transport equipment, representing €322.7 billion, constituted 46.1% of total imports from BRICS. In contrast, EU exports to BRICS were led by chemicals and machinery, indicating an export focus on high-value-added products.

Table 2. Trade between EU and BRICS by sector, 2023

Sector	Imports (€ million)	% of Imports	Exports (€ million)	% of Exports
Machinery and Transport Equipment	322,683	46.1%	175,702	46.3%
Chemicals and Related Products	61,110	8.7%	78,957	20.8%
Manufactured Goods	85,209	12.2%	32,346	8.5%
Mineral Fuels, Lubricants	54,996	7.9%	5,005	1.3%
Miscellaneous Manufactured Articles	116,464	16.7%	43,021	11.4%

Source: European Commission, 2024

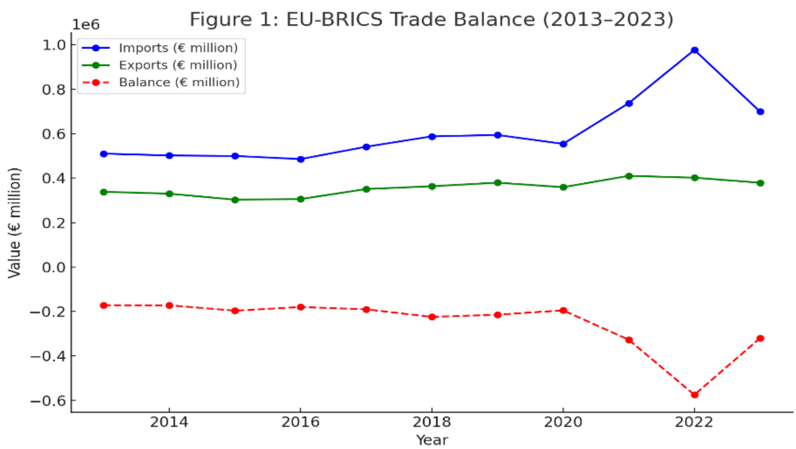
The concentration of imports in machinery reflects the EU's dependency on BRICS countries, especially China, for electronics and other technology-driven products.

The trade in the period 2020 – 2023

Between 2020 and 2023, the EU experienced considerable volatility in trade with BRICS, particularly due to changes in global supply chains and policy-driven shifts in energy trade. Import growth was especially strong in machinery and mineral products, with an increase in high-demand sectors such as technology. The sharp decline in mineral fuel imports in 2023 highlights the EU's commitment to diversifying its energy sources, reducing reliance on BRICS, especially Russian exports.

The export was more stable, led by chemicals and pharmaceuticals, where growth has remained positive. This sector's resilience highlights the EU's ability to maintain competitive exports in high-value segments despite the global economic shifts.

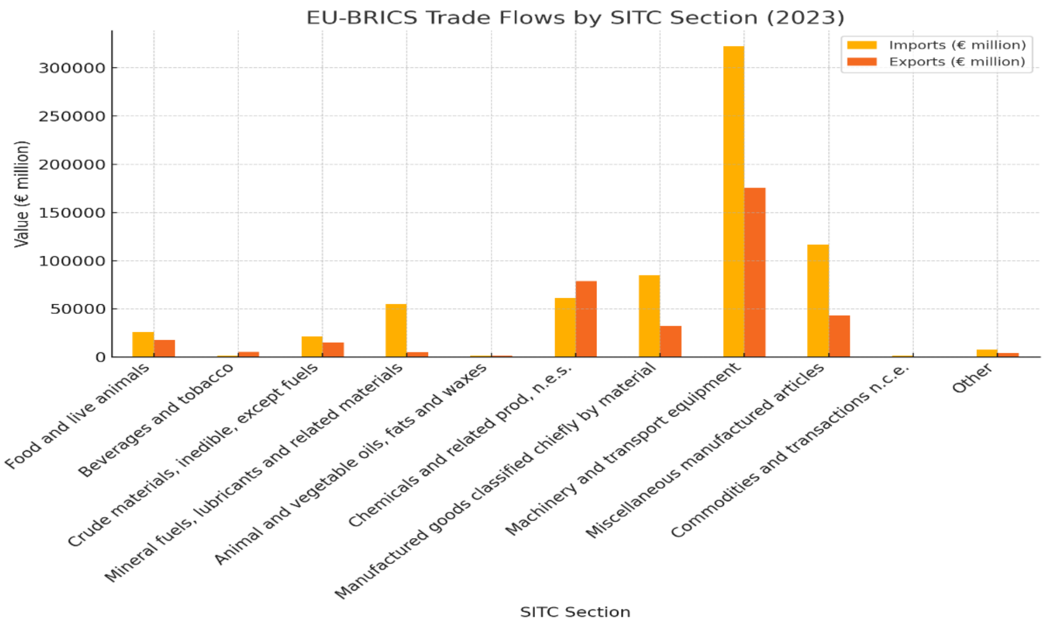
Figure 1 illustrates the persistent trade deficit, which widened in recent years, particularly in 2021 and 2022, before a partial recovery in 2023.



Source: European Commission, 2024

Figure 1. Title EU-BRICS trade balance in the period 2013-2023

Figure 2 shows the EU-BRICS trade flows by SITC section for 2023. This sectoral breakdown provides insights into the composition of EU-BRICS trade, with a notable focus on machinery and industrial goods, alongside energy and chemicals.



Source: European Commission, 2024

Figure 2. EU- Sectoral contributions to imports and exports in 2023

It leads to the following conclusions:

- „Machinery and Transport Equipment" dominates both imports and exports, accounting for the largest trade values (€322,683 million in imports and €175,702 million in exports), reflecting significant industrial and technological exchange.
- „Miscellaneous Manufactured Articles" and „Chemicals and Related Products" are also prominent, indicating diverse industrial goods and chemical products traded between the EU and BRICS countries.
- „Mineral Fuels, Lubricants, and Related Materials" accounts strongly for imports (€54,996 million), emphasizing the EU's reliance on BRICS for energy resources, though exports in this category remain low.
- Other sectors, such as „Food and Live Animals" and „Crude Materials, Inedible Except Fuels", show moderate trade volumes but reflect important contributions to agricultural and raw materials trade.

This data highlights the dominant role of machinery and transport equipment in EU imports from BRICS and the strong presence of chemicals in EU exports to BRICS.

Key trends in EU-BRICS trade relations

On the basis of the statistical data presented in the previous point, the following key trends in the EU-BRIS trade relations can be outlined:

- Chronic trade deficit – the EU maintains a significant trade deficit with BRICS, largely driven by machinery imports from China and mineral fuels from Russia.
- Machinery and transport equipment dominate the EU's import structure, underscoring the EU's import dependency on BRICS for technology and manufacturing goods.
- Strive for energy diversification – the decline in mineral fuel imports reflects the EU's energy policy changes, reducing reliance on BRICS for energy resources.

The EU's persistent trade imbalance with BRICS

The EU has consistently maintained a significant trade deficit with BRICS countries, driven primarily by its high import volume of machinery from China and mineral fuels from Russia. As of 2023, the EU's trade deficit with BRICS reached approximately €320.3 billion, reflecting an asymmetrical trade relationship (European Commission, 2024). This deficit highlights the EU's dependency on BRICS economies, especially in essential sectors like technology and energy.

China is the largest source of the EU's imports within BRICS, especially in high-value sectors like electronics, machinery, and telecommunications equipment. The EU relies heavily on Chinese imports in these categories, a dependency exacerbated by China's role as a global manufacturing hub, which allows it to produce cost-effective goods for the EU market (Smith & Lee, 2020). Russia, on the other hand, has traditionally been a primary supplier of mineral fuels to the EU, including oil and natural gas. These imports support the EU's industrial needs and energy demands, although geopolitical tensions and the EU's commitment to energy diversification have recently altered this relationship.

The trade deficit poses economic and strategic challenges. It limits the EU's bargaining power and exposes it to supply risks tied to geopolitical events, particularly in cases where dependence on BRICS countries may conflict with EU policy objectives.

EU's reliance on BRICS for machinery and transport equipment

A key feature of the EU-BRICS trade relationship is the EU's dependence on BRICS countries, especially China, for machinery and transport equipment. In 2023, machinery and transport equipment accounted for 46.1% of the EU's imports from BRICS, amounting to €322.7 billion (European Commission, 2024). This dependency reflects both the EU's demand for competitively priced machinery and BRICS's capacity to fulfill this need efficiently, with China playing a leading role due to its established manufacturing sector.

China's dominance in machinery exports to the EU stems from its extensive manufacturing infrastructure, capable of producing high volumes of electronics, automotive components, and other machinery. This has enabled China to maintain competitive pricing, meeting the EU's demand for technology-related goods and automotive products, even as EU firms face challenges competing in terms of cost (Dunning, 2018). Beyond China, India also contributes to EU imports in machinery, particularly in automotive parts, while Russia provides energy-related machinery, albeit to a lesser extent (Krugman, 2021).

The EU's dependency on BRICS machinery imports underscores vulnerabilities, such as potential disruptions in supply chains, which became evident during the COVID-19 pandemic and subsequent global market shifts. In response, the EU has aimed to reduce reliance on external machinery sources by investing in local manufacturing capacities and building trade partnerships outside BRICS.

Reducing dependence on BRICS for energy resources

The EU's trade relationship with BRICS has historically involved substantial imports of energy resources, particularly from Russia. However, since 2022, the EU has actively pursued energy diversification to reduce reliance on Russian imports, a change driven by geopolitical tensions and policy shifts under the European Green Deal, which aims for carbon neutrality by 2050. This transition is evident in the significant drop in mineral fuel imports from Russia, which has reshaped the EU-BRICS energy trade structure.

To address its energy security, the EU has redirected efforts towards renewable energy and secured alternative sources of natural gas and oil from regions outside BRICS, particularly North America and the Middle East. These changes align with the EU's environmental objectives, reducing dependency on fossil fuels while promoting sustainable energy sources within its borders. The EU's shift away from Russian energy imports has been bolstered by investments in LNG terminals and infrastructure supporting renewable energy projects, which also help mitigate risks related to geopolitical instability.

The EU has outlined its strategy for energy diversification and reducing dependence on external energy sources, including those from BRICS countries, in several key documents.

The REPowerEU Plan (European Commission, 2022) aims to rapidly reduce the EU's reliance on Russian fossil fuels by diversifying energy supplies, accelerating renewable energy deployment, and enhancing energy efficiency. It emphasizes the importance of securing energy independence through diversification and sustainable practices.

The European Green Deal (European Commission, 2019) sets the EU's roadmap for a sustainable economy, including measures to decarbonize the energy sector, promote energy efficiency, and expand renewable energy sources, thus reducing dependence on imported fossil fuels.

The EU Energy Security Strategy (European Commission, 2018) further focuses on stable and secure energy for European citizens and the economy, underscoring the need for diversified energy sources, increased energy efficiency, and an integrated internal energy market.

FDI between EU and BRICS

The Foreign Direct Investment (FDI) between BRICS countries and the EU is growing. According to data from Eurostat (2024), the BRICS countries, especially China and India, have experienced a significant growth in FDI from the EU. In 2022 the EU's outward FDI stocks in China were valued at €247.5 billion (experiencing a constant increase in the last decade), and in India at €108.3 billion. These figures highlight the EU's strategic interest in diversifying its investment portfolio by engaging with rapidly developing markets. The substantial FDI stocks in these to countries prove their attractiveness to European investors, driven by their large consumer bases and significant economic growth potential. This increase acknowledges the BRICS' rising economic influence and its attractiveness.

FDI flows between the EU and BRICS are concentrated in sectors such as manufacturing, technology, and energy. The EU's investments in these areas are strategic, aiming to leverage competitive production costs and expand into new markets within BRICS. This strategic alignment benefits both regions, enhancing trade and economic interdependence. However, there are numerous challenges in the EU-BRICS FDI relations related to regulatory differences, political uncertainties, and economic volatility in the BRICS countries.

Potential impact of further BRICS' integration on the EU

The potential integration of BRICS poses several implications for the EU, influencing economic competitiveness, trade relations, and geopolitical dynamics. Nach and Ncwadi (2024) emphasize the increasing economic cohesion within BRICS and its potential as a counterbalance to Western-dominated global governance. They discuss the proposal of an optimum currency area (OCA) among BRICS, which, if realized, could reduce the global reliance on the euro and the US dollar. Such currency integration might also challenge the EU's economic influence in global markets and financial institutions. Furthermore, a unified BRICS approach in international forums could result in coordinated stances on global issues, potentially opposing EU positions, thus affecting the EU's strategic and economic leverage on the global stage.

Banday, Murugan, and Maryam (2020) focus on the role of FDI and trade openness in fostering economic growth within BRICS, demonstrating that both factors have positively influenced these nations' economies. For the EU, this growth trajectory in BRICS means increased competition, as these emerging economies continue to attract global investment, potentially at the expense of EU markets. Additionally, the EU may face intensified competition in export markets, given BRICS countries' rapid development in manufacturing and services. However, the EU could also benefit from deeper economic engagement with BRICS, capitalizing on growth opportunities through increased FDI flows, technology exchange, and collaborative trade policies. Enhanced economic integration within BRICS, combined with policies promoting trade and FDI, suggests a shift towards a more multipolar economic landscape, compelling the EU to adapt to the increasing influence of BRICS in shaping global trade and investment patterns.

Conclusion

The trade relationship between the EU and the BRICS nations has evolved into a complex interplay of opportunities and challenges, significantly impacting global economic dynamics. This analysis has highlighted several key aspects of this relationship, emphasizing the persistent trade deficit, sectoral dependencies, and shifts in energy trade for the EU.

The analysis of EU-BRICS trade relations reveals a deepening interdependence, particularly in machinery, technology, and mineral products. The main challenges are related to the trade deficit and dependency on BRICS for critical imports. These trends call for strategic trade policies that balance economic benefits with supply chain diversification and risk mitigation in key sectors. The EU's substantial trade deficit with BRICS, reaching €320.3 billion in 2023, underscores a reliance on imports of machinery from China and mineral fuels from Russia (European Commission, 2024). This imbalance reflects deeper structural dependencies, where the EU benefits from competitively priced goods but faces strategic vulnerabilities associated with over-reliance on external suppliers. The EU must invest in enhancing its domestic production capabilities, particularly in high-tech manufacturing and machinery, to reduce external vulnerabilities. Strengthening trade relations with alternative partners and diversifying import sources can also mitigate the BRICS-related risks of dependencies.

Energy diversification emerges as a critical strategic response by the EU to mitigate reliance on BRICS for energy resources, particularly in the context of geopolitical tensions with Russia. The significant reduction in mineral fuel imports from Russia aligns with the EU's commitment to sustainability and energy security, as outlined in the European Green Deal (European Commission, 2019). This shift not only redefines the EU-BRICS energy trade dynamics but also positions the EU as a proactive player in the global transition towards renewable energy sources. Continued commitment to energy diversification and sustainability will be crucial in reshaping the EU's trade balance and fostering long-term economic resilience.

Future research could analyze the socio-economic implications of the trade deficit on the EU labor market, understanding how the EU-BRICS trade relationship impacts strategies for balanced and sustainable economic growth.

Sponsorship

The research paper was developed as part of project NI-11-2023 titled „Payments in international trade – trends and perspectives“, financed by the University of National and World Economy.

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MONITORING AND RISK MANAGEMENT STRATEGIES IN PUBLIC POLICIES AND PROGRAMS: A COMPREHENSIVE ANALYSIS

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Abstract

This research paper aims to overview the relationship between financial reporting and public finance performance, focusing on the detection and prevention of fraud. It emphasizes the importance of coherent monitoring and risk management in public policies and programs. The study suggests that transparent financial systems increase investor confidence, leading to economic growth. To achieve effective policies, clear measurable objectives, evidence-based approaches, continuous monitoring, cost-effectiveness analysis, long-term impact assessment, stakeholder engagement, transparency, accountability, and effective dissemination of evaluation findings are crucial. The methodology includes publications, legal frameworks, and questionnaire results. The results reveals trends, challenges, and areas for improvement in public accounting and auditing practices. It gathers input from key stakeholders, such as auditors, accountants, and financial officers, allowing policy makers and public sector managers to understand the effectiveness of current practices, their impact on financial reporting, and economic implications for public institutions.

Responsibility and fairness in public asset administration are also essential. The focus on moral and expert guidance is expanding, emphasizing respect for moral standards. The public sector's mission is sustainable development, covering direct costs for companies. Public services are prioritized for economic and social development. The Central and Local Governments are responsible for economic functioning, and the client's right to public benefits is fundamental.

Keywords: sustainable development, public policies, public finance, performance, policy makers

Introduction

Policies and procedures are essential for organizations in Albania to promote integrity and maintain user confidence in accounting information on strategic interactions between users, and reporters, in accounting and financial reporting.

This scientific study concludes that a good strategic interaction positively affects financial performance and credibility, ensuring user confidence and revenue. Organizations must have clear policies and a strong control system to provide accurate and reliable interactions. Systematic assessment of costs and outcomes of various interventions and analysis of financial effectiveness for resource allocation and decision-making provides the greatest return for invested resources and is indeed a powerful tool for decision-makers and public policy.

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This research paper examines the strategic interactions between users, reporters, and public revenue in understanding the correlation between financial reporting and public finance performance. It focuses on tracking fraud detection and prevention, and the effectiveness of public policies and programs. Transparent financial systems increase investor confidence, leading to economic growth. The study emphasizes the importance of clear measurable objectives, evidence-based approaches, continuous monitoring, cost-effectiveness analysis, stakeholder engagement, transparency, accountability, and effective dissemination of evaluation findings. The methodology includes publications, legal frameworks, and questionnaire results. The study concludes that a good strategic interaction positively affects financial performance and credibility, ensuring user confidence and revenue. The implementation of sustainable policies for the management of public finances requires increased attention from policymakers. Tha authors is engaged in finding concrete practices that are implemented in public institutions, the requirements of time and the introduction of technology in financial reporting.

Literature review

Public accountants in Albania, document accurately the transaction and generate the financial reports in line with IFRS. Auditors ensure the accuracy and reliability of financial data by carrying out independent evaluations, which inspires trust among interested parties. Establishing and implementing internal control systems demonstrates public organizations' commitment to integrity and moral values (Demi Mosho A. &., 2023). Organizations in Albania need to have procedures and policies in place to protect user trust and promote truthfulness in accounting data about strategic user-reporter interactions in accounting and financial reporting (J Puci, 2022).

The public sector has always been at the front of governance and accountability. Governments have always had to respond to the demands of their constituencies (Demi Mosho). In this process, governing bodies often challenge the effectiveness of their governance process, reinforces the idea of the that governance refers to how organizations are led and controlled. It builds the mechanism to achieve accountability between key stakeholders, management and governing body. Furthermore, the accountability arrangements vary from country to country due to differences in overall constitutional governance arrangements. Therefore, different countries have different views regarding internal control policies.

Accrual accounting is the only generally accepted information system that provides a complete and reliable picture of a government's financial and economic position and performance. The importance of accrual accounting, in relation to macroeconomic policies, increases from the fact that it measures assets and liabilities, which are of particular importance in the construction of fiscal policy and fiscal sustainability (A Kadiu, 2022). Such a fact is not evident on a cash basis. Moving towards full accrual, some governments have also implemented accrual budgeting. An accrual accounting framework is essential to systematically determine the full costs of government activity

(Demi A., 2024). Full cost information (including non-cash costs) is essential for evaluating the efficiency of government services and is therefore a key element of any public sector performance management framework (Demi A. Farruku E., (2015). There would be distinct benefits to public sector management and governance in adopting a single set of accrual-based accounting standards across all levels of government (Hoda, 2023). From an EU perspective the wide range of public sector accounting standards results in a lack of Fiscal transparency and Comparability due to unmatched, incomplete and inconsistent primary accounting data (S Xhaferri, 2024).

This research summarize the importance of applying the accrual basis of accounting in the public sector: – Better measurement of costs and revenues, including comparisons between years; – Greater focus on output (result) than on input More efficient and effective use of resources; – The full cost of providing a service can be compared with external suppliers; – A better indicator of the sustainability of government policies; – Improving accountability; – Better financial management; – Wider basis of comparability regarding performance results.

Methodology and data

The purpose of this paper is to understand the practices, challenges and opportunities in the sector accounting and auditing, all of which can help better manage public funds, transparency and good governance practice. This topic focuses on orientation of accounting and auditing in the public service, accountability and efficiency in administration of government agencies are general goals. It contains a brief explanation of the researched topic, the data from different information, their selection, which are divided according to their importance, as well as the reasons why this topic was selected.

Research results and comments

Public accounting is the basic instrument for recording, analysis and reporting of financial transactions involved in public service. It is the gathering and structured recording of fiscal data by government bodies and public institutions (A., 2 – 4 November, 2016,). As a result, policy makers, stakeholders and other individuals seek fair information and honest to assess the financial stability and efficiency of public organizations. The other critical element of oversight is auditing, which verifies authenticity and reliability of financial data and violations of relevant rules and regulations. Auditors give their independent opinions regarding the balance and fairness of the financial statements. Controls are carried out to determine the existence of cases of fraud, abuse and misuse, as well as cases of deficiencies that may result in the misuse of public funds and, therefore, undermine public confidence in government.

In the public context, auditing acts as a mechanism for the detection and prevention of malfeasance, mismanagement and corruption. Regular audits carried out by the Units government agencies improve their financial systems and internal controls. Via using audits, public entities are able to implement corrective measures and improve governance practices. Accounting and auditing play a critical role in the public service context. Auditing represents the best way to ensure that public entities do not misuse funds and not rob the public (Grossi, 2023).

Public sector associations, including government offices and non-profit associations, carry great assets and responsibilities by providing basic types of public assistance and advancing government social assistance. Given their basic work in the public arena, public area associations are subject to high demands of responsibility and fairness (CIPFA, 2014). The assessment plays an essential part in ensuring the accountability and fairness of the public sector by providing an independent assessment of an association's financial disclosure, internal controls and consistency with relevant regulations and guidelines.

Audit work in public assistance is fundamental for guaranteeing justice, responsibility and ability in the use of public assets. Auditing in the public domain identifies misuse, extortion and abuse of assets, expansion of liability and authorization of general government assistance rules and regulations. Public aid review also identifies expected opportunities and further develops monetary administration processes. The review delegates can propose suggestions and corrective measures to reduce the expected risks and increase the capability and sustainability of public activities. Through evaluation, public organizations can increase the degree of validity according to residents and donors by showing their efforts for justice and accountability. The free and skilled assessment gives an objective assessment of the presentation of public associations and continues with their respect. Audit work in the public sector is not only to explore and investigate monetary activities, but also to advance accountability, further develop processes and create a more direct and reliable climate for public administration clients. The sustainable review is the main starting point for a decent administration of assets and for the efficient operation of the public administration in the light of a legitimate concern for the residents.

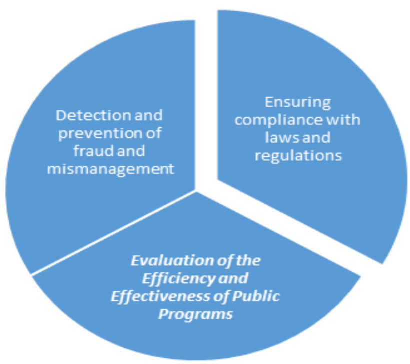

Figure. 1. The role of auditing in the public service

Accounting plays an important role in the public service. Bookkeeping provides a systematic way to record, report and examine monetary exchanges. It is the foundation of monetary respect and justice in open organizations as it ensures that every coin of citizens' money is represented and used as it should be. Keeping public accounting helps in direction, supports the achievement of political objectives and encourages the responsibility of the public, i.e. citizens.

Bookkeeping is a fundamental aspect of a country's financial prosperity and institutional credibility. The work of accounting in the public sector consists in guaranteeing an efficient and productive use of public assets. Through extensive accounting evidence, public institutions can guarantee fairness in the administration of public assets and provide clear records of their consumption to residents and contributors. This promotes credibility building and reduces the risk of abuse of public assets. Accounting also takes an essential part in monitoring and evaluating the performance of public administrations.

Figure. 2. The role of accounting in the public sector

Conclusion

Data analysis and artificial intelligence can be stored to personalize their knowledge in areas such as marketing, customer services and product development. This can increase the loyalty of customers and the companies they share with them. Through data analysis and artificial intelligence, organizations can discover potential and opportunities for new development. This may be in the plan of further strategies and at their minimum. This approach to data analytics and artificial intelligence is becoming more widespread within the public sector.

Future models and developments in accounting and auditing in the public sector in Albania include data acquisition and correspondence innovation (ICT) to work in monetary and review processes in open explanations. The improvement of computerized stages and the use of direct portrayal can expand the productivity and fairness of tasks, working with the entry and examination of monetary information for reviewers and administrators. Another significant pattern is the expansion of requirements for responsibility and fairness in the administration of public assets, due to the expansion required for responsibilities and notifications from world bodies and contributors. Public institutions must be ready to report and legitimize public use with a high degree of detail and truthfulness, striving to meet global accounting guidelines.

A future development in accounting and auditing for public assistance in Albania is the expanded focus of moral and expert guidance activities in the accounting and review act. The demand for fairness and objectivity in the accounting and review processes has been expanded, emphasizing respect for qualities and moral standards in day-to-day administration Continuing Professional Development is essential for experts to remain current in their field, describes the type of learning exercises that experts participate in to further their skills and capacities.

We are living in a period where businesses are constantly developing and this is only the tip of the iceberg, but if we do not adapt to the latest news, we will have an anomaly in the labor market. In this way, as experts, we must not give up learning for several main reasons:

- Skills: As people qualify with new information, Continuing Professional Development equips them with the skills to progress in their work.
- Flexibility: This is essential in a liquid job market. After equipping them with the latest required skills, Continuing Professional Development offers their representatives to adapt decisively to changes in the gig or industry.
- Professional success: Continuing Professional Development allows the person to focus for a short period (1 year), to ensure that they have secured the essential skills.
- Long-term sustainable learning: Continuing Professional Development goes above and beyond to ensure that the educational experience itself is organized, useful and informative.

The mission and strategic vision of the public sector is its sustainable development within the context of covering the direct costs of these companies. For this reason, the public services provided by these companies are branches of the economy which are a priority in organic dependence with the economic and social development of the region. The Central Government as the prime minister of the country's strategic economic policies and the Local Government as the follower of these policies with specific economic policies are responsible for the economic functioning of public companies. The client's right to public benefits is fundamental in his life and cannot be denied to anyone (Pucı, 2024).

Recommendations for process improvement include strengthening risk management, updating legal acts, increasing internal controls, standardizing documents, improving financial reporting, increasing compliance and improving IT systems. Increased operational efficiency, compliance with legal requirements, less risk of fraud, increased financial responsibility and increased transparency and stakeholder trust are all potential outcomes of these actions. It is also advisable to implement frequent training programs, audits and standardized processes. Increasing the overall quality and level of detail of financial reports is the ultimate goal, as this will increase compliance and decision-making.

Public accounting is an essential tool for evaluating global plans, initiatives and policies, ensuring accountability, transparency and stakeholder involvement. It ensures accurate financial reporting, identifies development opportunities and guides future choices. Public accountants also evaluate the financial effects of policies and programs, ensuring compliance with laws and regulations. They operate globally, improving environmental performance reporting and monitoring using technical advances and international standards. Reforms in the management of public finances directly affect the field of public accounting and auditing.

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STUDY OF ONLINE GROCERY SHOPPING IN THE EUROPEAN UNION: INFLUENCE OF SOCIO-ECONOMIC FACTORS

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Abstract

In the digital economy, online grocery shopping is growing in the countries of the European Union. The main objective of the present work is to investigate the dynamics of the relationship between the online grocery shopping by individuals and the size of the Gross Domestic Product per capita of the 27-member states of the European Union, and on this basis draw corresponding conclusions and summaries. The geographical focus of the study is on the online shopping of European consumers. The measurement of the investigated dependencies is carried out using the statistical software for computer processing – IBM SPSS Statistics and the Excel program. Analyzes were based on the method of linear regression and correlation. The time span of the study is 2013-2023. The results of the study interpret the variation of online grocery shopping due to a socio-economic factor such as Gross Domestic Product per capita. The generalizations and conclusions drawn are useful for characterizing the determinants of the changing behavior of European consumers.

Keywords: online shopping, online grocery shopping, factors of online shopping, European Union
JEL: L 81, E 21, D 11.

1. Introduction

In the digital economy, online grocery shopping follows a trend of continuous growth. Internet usage is increasing. User behavior is changing. In search of the best economic value, marketers improve their product and service offerings.

By its very nature, online grocery shopping is one of the key elements of consumer behavior. Researchers on these issues seek to provide an understanding and interpretation of the factors that account for variation in shopping behavior, including at the household or individual level. The upcoming changes have an impact on the development of the type of commercial formats, such as supermarkets, hypermarkets, convenience stores, online stores.

European consumers are changing their way of life, which is becoming more complex and advanced in socio-economic and socio-cultural direction. New applications of digital technologies supporting user activity are being created. A significant part of consumers from the 27 member states of the European Union adopt shopping models that combine the choice of offline with online stores.

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The behavior of the studied users is determined by diverse groups of factors: technical and technological, marketing, social and cultural, psychological, demographic, economic and others. In confirmation, in the subsequent exposition, research positions are cited that single out one or another group of factors, or a combination and integration between them is sought.

As confirmed by R. Singh and M. Soderlund, online grocers must create the right shopping experience to ensure that consumers remain loyal and make repeat purchases by identifying the factors that support a positive experience and satisfaction. According to the paradigm adopted by S. Jaiswal and A. Singh, among the defining factors that influence the consumer experience of online shopping are the digital platforms offered by grocers (Jaiswal & Singh, 2020). Theorists A. Fiore and J. Kim emphasize the level of user experience, psychographic features and interests (Fiore & Kim, 2007).

In accordance with the research objective set in the present work, the outline of theoretical-methodological positions pointing to the socio-economic characteristics of users, such as: gender, age, educational status, employment, place of residence, amount of disposable income, is of particular importance (Bigne, et al., 2005). The indicated indicators can be supplemented with: the size of households and their consumer expenditure, the average consumer expenditure at the household or individual level. Other significant indicators of socio-economic development, including those indicated in reports of the National Statistical Institute, are: growth rate of real Gross Domestic Product per capita, investments, growth rate of labor productivity, expenditure on research and development activities and others (НСИ, 2024). The scope of these indicators includes those that are of primary importance for determining the socio-economic profile of any economy, and also of the European economy, such as: Gross domestic product per capita, labor productivity and others.

The main objective of the present work is to investigate the dynamics of the relationship between the online grocery shopping by individuals and the size of the Gross Domestic Product per capita of the 27 member states of the European Union, and on this basis draw corresponding conclusions and summaries. In order to achieve the goal, adjacent tasks have been formulated, finding expression in: providing theoretical statements about the online grocery shopping; interpreting empirical aspects of the studied shopping behavior of European consumers, taking into account the influence of certain socio-economic factors; formulating more important conclusions.

The analysis and evaluation of online grocery shopping carried out at the European level requires the perception of certain limitations within the framework of the study: introduction of temporal and territorial scope – the study covers the period 2013-2023 and targets consumers from 27- the member states of the European Union; the presentation of the development is dominated by a presentation of the impact of selected socio-economic factors on the online grocery shopping process in Europe.

2. Literature review

By its very nature, online grocery shopping is defined as a form of shopping facilitated by e-commerce websites or mobile applications. As highlighted by F. Driediger and V. Bhatiasevi, studies of online grocery shopping began as early as the 1990s with the advancement of the high-tech generation, which turned to online shopping as it simplified the lifestyle (Driediger & Bhatiasevi, 2019).

The process of online grocery shopping is developing with increasing potential and economic importance in the context of the application of digital technologies in the commercial business. As evidenced by the above-mentioned research findings, the development of this process is influenced by a number of socio-economic and other factors. In a variety of scientific works, the power of influence of factors of a demographic nature – gender, age, education, size of the household, number of children up to 18 years of age in the household, marital status, status according to professional development and others are interpreted; economic nature – amount of disposable income, amount of consumer spending, Gross Domestic Product per capita and others; technological nature – types of devices or software used, availability of internet skills and others.

In the specialized literature, there is evidence that the socio-economic characteristics of consumers are determinants for online grocery shopping, namely: gender, age, educational status and income (Verhoef & Langerak, 2001). For example, according to the claims of M. Meuter, J. Bitner, A. Ostrom and S. Brown, younger consumers have better information and communication skills, look for differentiated and innovative consumption, perceive greater benefits of online grocery shopping by saving time, the ability to shop at any time, compare the prices of purchased products, take into account the promotional conditions (Meuter, et al., 2005). The theorists M. Naseri and G. Elliott also reached similar results indicating the role of demographics, social connectedness, and prior Internet experience in online shopping adoption (Naseri & Elliott, 2011). Gender research questions are often associated with the influence of respondents' age on online grocery shopping decisions, as reported by (Hou & Elliott, 2021).

A substantial part of the studies in specialized theory and practice disclosed by various author teams including T. Spahiu, A. Manavis, Z. Kazlacheva and H. Amori, primarily focus on technical and technological advances where offline and online systems connect and function together to enable omnichannel shopping (Spahiu, T., et al., 2021). The views expressed thus apply to online grocery shopping.

Another part of the studies focuses on the influence of psychological and sociocultural characteristics of users. A systematization of consumer expectations, attitudes and shopping habits related to the manifestation of interest in the assortment items and their attributes, brand, logo, name, colors and others is carried out. In this regard, M. Wolfinbarger and M. Gilly emphasize that online grocery shopping consists of user experience with websites, receipt of ordered goods, timeliness of delivery and satisfaction with service (Wolfinbarger & Gilly, 2003).

In a joint scientific development of A. Huterska and R. Huterski, findings and generalizations related to a study of the determinants of online shopping in the countries of the European Union are presented. The cited research shows the statistical significance of online shopping by dependent variables mainly of a technical and socio-economic nature, affecting the relative share of consumers who shop online for groceries in the societies of the European Union countries. According to the authors, the increase in this type of shopping is influenced by: technological factors, such as the availability of broadband Internet and the way the Internet is used; demographic characteristics of users; level of economic development, measured by the Gross Domestic Product per capita (Huterska & Huterski, 2022).

In the literature review made in this way, when explaining the factors influencing online grocery shopping, those related to the socio-economic characteristics of consumers are of particular importance for the present study.

3. Materials and methods

The subsequent research focuses on analyzing and evaluating the dynamics of the interrelationship between the variables „online grocery shopping, represented by the online purchases of food and beverages from stores and other suppliers – size of the Gross Domestic Product per capita“ of the 27 member states of the European Union. The studied online shopping and the indicator – Gross Domestic Product per capita, are significant indicators of the level of economic well-being of European consumers.

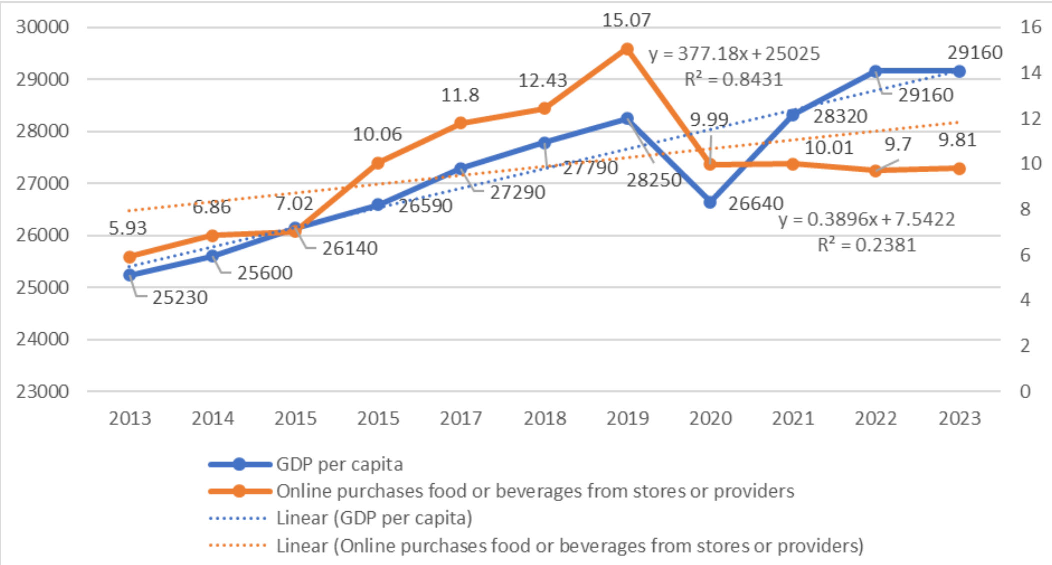
From a methodological point of view, the analysis of the assessed interrelationship is carried out by applying the method of single linear regression and correlation. Statistical software for computer processing – IBM is used for analytical purposes SPSS Statistics, and the capabilities of the program Excel. The main source of information is data on consumers from the 27-member states of the European Union, published by Eurostat. The time frame of the study is as follows: 2013-2023.

The results obtained from the research take into account the variations of the two measured indicators within the European Union. The usefulness of the formulated conclusions finds expression in the characterization of significant factors determining the behavior of European consumers in online grocery shopping.

4. Research results

The dynamics of change in the online environment, using the possibilities of digital technologies, creates new added value in satisfying the demands of consumers. New research results published in the specialized literature show that modern consumers, along with shopping in physical stores, seek to improve their experience through digital technologies. According to data from the Global Trade Association, more than 80.00% of online users have expectations and attitudes that augmented reality – AR, has the potential to improve shopping at all levels, including in physical stores (Shop. Association, 2023).

The search for saving time and convenience when shopping is changing the behavior of consumers from the 27 member states of the European Union. A visualization of the data released by Eurostat for the two deterministic variables is achieved using Figure 1.



Source: Eurostat, 2024: isoc_ec_ibgs; sdg_08_10; isoc_ec_ibuy.

Figure 1. Dynamics and trends of online purchases of food and beverages from shops or other suppliers and of the Gross Domestic Product per capita of the 27 Member States of the European Union in the period 2013 – 2023

The presented Figure 1 is based on data visualizing the dynamics and trends of the size of the Gross Domestic Product per capita and the online purchases of food and beverages by European consumers. This figure contains two axes, with the left axis showing the size of the Gross Domestic Product per capita, and the right axis showing the change in the analyzed type of online purchases.

During the study period 2013-2023, the dynamics of online purchases of food and beverages from shops or other suppliers of consumers from the 27-member states of the European Union can be described by a relatively increasing trend, as the coefficient of determination R^2 amounts to 0.8431. The reported coefficient expresses the strength of the dependence and shows how much of the variation in the size of the studied online purchases – over ¾ – can be explained by the change in the other determinant – the Gross Domestic Product per capita in the European Union, measured at market prices. In essence, this is the so-called explained variance. The purpose of performing regression analysis is to establish the presence of an emerging trend. When considering the section of the regression line, it is found that the increase in the size of the Gross Domestic Product per capita in the 27 member states of the European Union for each past year is 0.3896 euros, and that of online purchases of food and drinks – with 377.18 euros. Therefore, the growth of the two compared indicators is at very different rates and rates of change. In addition, in accordance with the reported dynamics of the Gross Domestic Product per capita, it was found that the coefficient of determination takes the value of 0.2381. Therefore, a relatively low part of the variation of this indicator – less than ¼ – is explained by the change of the other variable.

The implementation of single linear regression and correlation with the statistical software product SPSS allows analyzing the apparent dependence of online purchases of food and beverages made by consumers in the 27-member states of the European Union on the factor: Gross domestic product per capita, measured at market prices. At the same time, it is important to clarify to what extent the tested model can be considered adequate or vice versa. With the help of the following Table. 1, Table 2. and Table. 3 shows the obtained results.

Through Table 1. the values of the measured correlation and determination coefficients are visualized.

Table 1. Model Summary

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0.617	0.381	0.312	2.197
The independent variable is GDP per capital.			

Source: Eurostat: isoc_ec_ibgs; sdg_08_10; isoc_ec_ibuy.

Through Table 2. data are displayed that allow the value of the variance to be estimated. The value of the F – criterion is determined from the given data. The comparison of the two estimates of the variables has empirical significance.

Table 2. A nova

	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.687	1	26.687	5.529	0.043
Residual	43.439	9	4.827		
Total	70.126	10			
The independent variable is GDP per capital.					

Source: Eurostat: isoc_ec_ibgs; sdg_08_10; isoc_ec_ibuy.

The analysis of the calculated coefficients is supported by the data in the following Table 3.

Table 3. Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
GDP per capita	0.001	0.001	0.617	2.351	0.043
(Constant)	-22.841	13.931		-1.640	0.136

Source: Eurostat: isoc_ec_ibgs; sdg_08_10; isoc_ec_ibuy.

The test method is the F – test, the value of which is empirically measured by comparing the two estimates of the explained and residual variance of the variable magnitude of online food and beverage purchases. As the data from Table 2., the explained variance with a value of 26.687 is sufficiently larger than the residual – 4.827, i.e. more than 5.53 times. This result allows us to assume that the tested model manages to explain a significant part of the variation of the studied online shopping, which is why it can be considered adequate. According to the data from Table 3. it is found that the parameter B = +0.001, from which the conclusion can be drawn that when the Gross Domestic Product per capita in the 27-member states of the European Union increases by 1.00 euros, there is an increase in the amount of online purchases of food and beverages with 0.001 euro.

Thus, the results of the study are based on the conclusion that a medium-strength dependence or a moderate degree of dependence is established between the two analyzed variables.

5. Discussion

The research results thus obtained are grounds for interpreting the influence of the variable – Gross domestic product per capita in the member states of the European Union, on the change in consumer behavior when shopping for groceries online. In the research field outlined in this way, there are opportunities to compare and contrast the results of studies in the highlighted area, published in the specialized literature. In earlier studies, a number of researchers published results and judgments that were associated with accounting for the influence of marketing factors, including the created trading conditions. One part of the authors brings to the fore the cross-shopping of food products – through models of selective use of commercial formats (Hino, April 2014). In subsequent studies, along with the marketing factors, those of a technical and technological nature stand out. The opportunities and challenges facing the construction and use of websites, applications, platforms for online grocery shopping are examined (Singh & Soderlund, 2020). Particular emphasis is also placed on factors of a socio-economic nature. The cited researchers adhere to prioritizing the impact of certain groups of factors. In the proposed development, this research position finds acceptance, with a special emphasis on interpreting and evaluating the impact of factors of a socio-economic nature.

6. Conclusions

The presented research, related to tracking the dynamics of online grocery shopping by individuals from the 27-member states of the European Union, allows certain conclusions and generalizations to be formulated. The obtained research results allow us to state that more than ¾ of the variation in the amount of online grocery purchases made by European consumers is explained by the change in the determinant – Gross domestic product of the population, measured at market prices.

Within the framework of the presented development, the assumption is shared that the size of the Gross Domestic Product per capita predetermines, both in the short term and in the long term, the behavior of consumers when shopping for groceries online. In addition, it is perceived that the type of shopping in question is primarily determined by the impact of socio-economic factors. Therefore, the magnitude of these indicators has a clear modeling effect on the amount of online grocery shopping, and there is a causal relationship between them. From this point of view, it is important that future decisions for the development of the European digital economy and society consider the influence of the factors analyzed and evaluated in this way.

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THE MUSIC INDUSTRY AND ITS ROLE IN THE GLOBAL ECONOMY

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Abstract

The paper presents the essence and structure of the music industry, analyzes its current state and outlines the latest trends in its development. The thesis is argued that this industry has a global character and is significant for the global economy. The annual report of the International Federation of the Phonographic Industry is presented and analyzed. Example of a leading company operating in the global music industry is also presented. The paper ends by outlining and commenting on some future trends in the evolution of this industry.

Keywords: global music industry, recording industry, International Federation of the Phonographic Industry, global economy

JEL classification: L82, F010

Introduction

The paper is focused on the essence and structure of the global music industry. The music as an economic good is discussed. Global recorded music as a main sector of this industry is analyzed in more detail. A thesis is argued that this industry is really global and is significant for the world economy. The paper aims at analyzing the current state of the industry, specifying the driving forces of its evolution, outlining the latest trends in its development and sharing some ideas about its future.

Is music industry global?

In order to answer this question, we have to give a definition of global industry. There are many different definitions. For example, according to Porter (1980) „a global industry is one in which a firm's competitive position in one country is significantly influenced by its position in other countries". This means that a company operating in a global industry, carries out its business activity in more than one country, and its competitiveness has a global character. Ohmae (1990) comments that in a globalized industry there are only global players. In addition, Friedman (2005) points out that „The playing field is being leveled. The world is moving from a world of countries to a world of global industries and corporations." Many authors in the field of international economics and business consider that contemporary world economy driven by globalization and internationalization, it depends on global industries and competition is on a

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global base. Based in the cited and other definitions we can summarize that a global industry is an industry, in which the companies operate on international markets, offer global products, serve global customers and compete on a global scale. Global industries have the following specific characteristics:

- Global markets reach. Companies, operating in global industries, perform their business across national borders, i.e. they have business operations in many countries and regions of the world.
- Global competition. Companies compete on a global basis, i.e., with other global players in the same industry.
- Global products and customers. Companies offer global standardized products to global customers.
- Transnational strategy. Often companies need „to balance the need for standardization to achieve economies of scale with the need for adaptation to meet local preferences." (Yip, 1992). This is the so-called glo-loc principle, realized in the transnational strategy according to Bartlett & Ghoshal (1998). This strategy is characterized by a high pressure for global integration and a high pressure for local responsibility. In transnational strategy, the company combines the two pressures, taking advantage of specialized knowledge and learning on a global scale. Therefore, there is a high degree of interdependence of national and regional markets. This corresponds to the idea of Porter (1980) for interdependence of company's competitive position in different countries, cited above. I.e. changes in one country or region can significantly influence business activity and consumer behavior and demand in other countries and regions.
- Global brand. Most of the companies build powerful and recognizable global brands. Brand identity is strong, coherent and clear. Customers understand the value that the company gives them.
- Economies of scale. Due to their size and scale of their cross-border operations companies from global industries are able to achieve economies of scale and use them as a source of competitive advantage in the global market.

What about music industry? Is it global? We can confirm this because contemporary music industry consists of companies which operate across national borders, compete globally and reach audiences in all over the world. Moreover, global music industry is driven by new technologies (for example, streaming platforms, artificial intelligence, etc.) and is influenced by culture, cultural differences and cultural exchange. Tschmuck (2021) comments that „the music industry is one of the most dynamic and fascinating business sectors. Its business model has had to evolve and adapt to continually changing technologies that impact at every level from distribution to artist management." This comment shows that the music industry has a dynamic nature and emphasizes its dependence on new technologies, which requires it to constantly change as well, in order to adapt to the dynamics of the international business environment in which the companies of this industry operate. According to Krueger (2019) „the music industry is a leading indicator of today's economy; it is among the first to be disrupted by the latest wave of technology, and examining the ins and outs of how musicians create and sell new songs and plan concert tours offers valuable lessons for what is in store for businesses and employees in other industries that are struggling to adapt." This quote highlights the importance of music industry in world economy. An online publication by BBVA Switzerland is entitled „The music industry: the 5th global market" (BBVA). The same publication points out that „music industry contributes $170 billion to annual GDP and supports 2.5 million jobs just in the United States". According to the IFPI Global Music Report 2024, cited and analyzed by Wilson-Bushell & Clover (2024), the global recorded music market, which is the main part of music industry, records growth for the ninth consecutive year. The authors point out that „global recorded music revenues grew by 10.2% in 2023, a positive increase from the 9% growth rate recorded in 2022, climbing to a total of $28.6 billion". Moreover, the same authors mention that the US is the world's largest single market for recorded music, and „US and Canada combined make up 41% of the global recorded music revenues." Below we will discuss the IFPI Global Music Report 2024 in more detail, but first let's comment the essence of music as an economic good.

Music as an economic good

In the center of global music industry is music viewed as an economic good. Krueger (2019) says that „to truly understand and appreciate music, you need to understand economics." Tschmuck (2021) characterizes music as follows:

- Luxury good. Music is type of an entertainment good. From an economic point of view, the price elasticity of its demand is higher than 1, which means that a smaller change in price leads to a higher change in demand. Moreover, higher income results in a disproportionally higher demand, and the demand disproportionally decreases if disposable income is reduced.
- Public good. For example, it is not possible to limit or exclude people from listening to an open-air live music and also there is no rivalry in consumption, because the individual perception of music and enjoyment from music are not influenced and reduced by the presence of other listeners.
- Merit good. Music generates strong positive externalities when they are consumed, i.e. music consumption offers more benefits to society as a whole than to individual consumers. It follows that „consumer sovereignty should be replaced by social preferences" (Tschmuck, 2021). The author indicates that „classical music is more meritorious than popular music, which is hardly subsidized". This is true because classical music usually is associated with a high degree of cultural and artistic value, as well as with enriching and contributing to the well-being of individuals and society as a whole (Moenroe, 2023).
- Club good. According to the Club theory (Buchanan, 1965; Chohan & D'Souza, 2020) club goods are non-rivalrous (i.e. they do not wear out, and their value doesn't decline with each subsequent use) and non-excludable (all individuals

are free to use them equally). The value of the music does not decrease with each repeated listening, and at the same time every user can listen and perceive the music individually without restrictions. Also, a good is a club good if access to it is restricted but with there is no rivalry in consumption. According to Tschmuck (2021) examples of music as a club good are music performances in concert and festival venues.

- Information good. Music contains a kind of information which can be transferred from one individual to other via knowledge transfer mechanisms. Moreover, music is an experience good, and the music consumer needs to collect information before perceiving and experiencing the music.
- Common good, i.e. a good that is non-excludable (all individuals can access it) but rival in consumption (there are some restrictions in its use). For example, sound recordings are usually protected by copyright. This means that permission must be obtained in order to use a specific recording.
- Private good. If music is excludable and rival in consumption, i.e. there are restrictions to its access and consumption, it is a purely private good. Examples are vinyl records, CDs and paid downloads of music tracks.

The ideas of Tschmuck (2021) give us much guidance on defining and characterizing music as an economic good. It is clear that music has specific and unique characteristics that differentiate it from other economic goods. Let's mention some of them:

- Music is an intangible good, it doesn't have a physical form, it cannot be touched or moved or stored;
- Music can be experienced, its value is manifested during and after consumption;
- Music has cultural and emotional value, it is difficult to determine its price and transform it into a commodity;
- Music is a form of intellectual property, it is protected by copyright laws;
- Music is an inexhaustible good, i.e. its consumption by one individual or group doesn't affect its quality and value;
- Music can be accessed by customers from all over the world and distributed worldwide, including via digital platforms;
- Music is a global good but regional preference sometimes play a significant role in its consumption due to cultural and other differences, which means that music embodies the glo-loc principle;
- Music distribution around the world is a form of cultural transfer and exchange between countries and regions.

Structure of the global music industry

There are several sub-industries that are part of the global music industry:

- Recorded music. It includes record labels – the big three major companies (Universal Music Group, Sony Music, and Warner Music Group) and independent labels, known as indies. Distribution of music – physical channels and digital platforms, and providers of technologies are also included here;

- Live music. It includes organizers of live concerts and music events and festivals, as well as music tourism (as a part of cultural tourism);
- Music and artist creation and management, including composers, performers, text-writers, copyrights, licensing of music, career development, producers, etc.;
- Music publishing (music scores);
- Musical instruments production and distribution, including international trade;
- Artist merchandising.

Global recorded music industry – state of the art and trends

Now we will focus on global recorded music industry. From its beginning in 1877 when Thomas Edison invented the phonograph, this industry has evolved and changed significantly. The main driving forces for its development and transformation are the new technologies, consumers and their changing behavior, and the rise of new business models. We can distinguish between several eras in its evolution marked mostly by the development of sound recording and sound reproduction technologies. The first era is associated with the invention of sound recording (the phonograph) and playing (the gramophone and vinyl records). This period comprising the years between 1877 and the beginning of the 20^{th} century is characterized by the foundation of the first record labels, for example Victor Talking Machine Company and Columbia Records. After the use of the radio as a main channel for music listening between the two world wars, the LP era follows (after the Second World War till the early 1970s). After that we have the CD and audio cassette era (from 1970s till 1990s). The introduction of the World Wide Web in 1991 leads to the digital era of global recorded music industry – compressed audio formats like MP3 and platforms for sharing and downloading music files. Finally, with the launch of Spotify in 2008, the contemporary era begins associated with music streaming and the revival of vinyl records.

The global recorded music industry is dominated by the so-called Big Three global companies – Universal Music Group, Sony Music Entertainment and Warner Music Group. The Big Three comprise over 70% of the market share. The other 30% are represented by smaller independent music companies known as indies (indie labels).

An interesting business case can be analyzed which is an example of a best practice in music industry – the independent music company Naxos Music Group focused on classical music and famous for its innovative business model. Naxos is in fact the leading classical music company in the world, as stated on its official website (https://naxosmusicgroup.com/). The company was founded in 1987 by Klaus Heymann, a German-born entrepreneur and music lover based in Hong Kong. Nowadays the group is a global network of companies which provide different services, mainly distribution and licensing, to many independent and major CD and DVD labels. The group has fifteen subsidiaries and 40 distributors. Naxos is known for its low prices on classical music

CDs and DVDs, which is due to hiring lesser-known but talented orchestras and up-and-coming artists. Part of the group is Naxos Global Logistics which offers services for many different types of products and industries, including media publishers, mail-order and online retailers for books and other media, electronics, car and motorcycle parts and home wear, and even clients from the fashion industry (http://naxos-gl.biz/en/). We can resume that competitiveness of Naxos business model is based on several elements:

- A niche specialization – focus on classical music;
- Efficient production costs and global partnerships – combination between affordability and high-quality recordings;
- Digital transformation – the introduction of the streaming service Naxos Music Library, devoted to classical music;
- Strong partnerships with universities, conservatories, music schools and public libraries;
- Support of many educational resources, for example the booklets of the CDS which contain detailed information of the work, its composer, the performers, as well as a music analysis of the corresponding work;
- A global distribution network devoted to the distribution of Naxos own recordings as well as the recordings of other indies;
- Artist development;
- Brand recognition.

Let's make a short SWOT analysis of Naxos Music Group. The main strengths of the company are its leadership in the classical music niche market, the low costs, the educational focus including information about composers, works and performers, the huge catalog of popular and less-known composers and artists, the digital streaming services and the global distribution network. Some of the weaknesses and problems that Naxos faces, are related to the limited profits resulting from the lower prices, the narrow focus on only classical music, the high dependence of CDs and DVDs which lose market share and consumer interest at the expense of streaming services and digital formats. The development of streaming services, the implementation of new technologies, the resurrection of vinyl records, the focus on customers and artists from emerging markets and the strategic partnerships with schools, universities, libraries and other educational institutions as part of the social dimension of sustainability give opportunities to the company to grow, achieve and maintain long-term competitive advantage and increase its reputation and profits. The competition from other indies as well as the Big Three and streaming platforms, the declining demand for physical music formats, the copyright and piracy problems in some countries in which the company operates form the main threats and risks. In resume, Naxos Music Group has a high potential to innovate, grow and strengthen its competitive advantages and global market position.

IFPI Global Music Report 2024

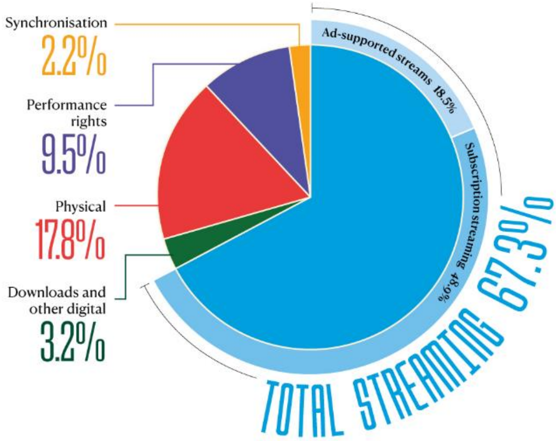
The International Federation of the Phonographic Industry (IFPI) is a non-profit organization representing the interests of recording industry worldwide. IFPI and its network of National Groups and Local Associations represents the interests of about 8000 members from 70 countries of the world. Its mission is to promote the value of recorded music, to campaign for the rights of record producers and to expand the commercial uses of recorded music (IFPI). Every year the organization publishes a Global Music Report which includes detailed data and analysis of recorded music revenues at national, regional and global level. According to the last report from 2024, analyzed by Smith (2024), Paine (2024) and other authors, the following trends in global recorded music industry can be identified:

- Revenue growth. The global recorded music market generated $28.6 billion total trade revenues in 2023, representing a 10.2% year-over-year growth, the ninth consecutive year of growth.
- The top five markets are USA, Japan, UK, Germany and China.
- On a global scale, streaming services continue to dominate. Streaming revenues accounted for the majority of revenue growth and claimed a 67.3% of total revenues. Subscription streaming revenues alone grew by 11.2% and made up 48.9% of the global market, i.e. the leading type of streaming services.
- Physical formats like vinyl records and CDs were reborn. Revenues from physical formats grew by 13.4%, with vinyl records continuing to increase its importance. Sales of physical formats were worth $5.1 billion in 2023 and accounted for 17.8% of the overall global recorded music market.
- A revenue growth is observed in all regional markets, with Latin America and China experiencing the biggest increases (by 19.4%, and 25.9%, respectively).

Figure 1 presents the global recorded music revenues by segment in 2023. The diagram shows that streaming services have the largest share, with subscription streaming services leading among them. In second place are physical formats, followed by performance rights in third place, downloads and other digital in fourth place, and synchronization in the last fifth place.

The Global Music Report 2024 also mentions some problems and challenges related to global recorded music industry, including streaming fraud and copyright (piracy), and some concerns over the impact of artificial intelligence on music composition, performance and copyrighting.

The data and analyses made by IFPI and published in its last Global Music Report highlight some of the future trends in global recorded music industry: the continued growth and especially in emerging markets; the dominance of streaming services; the new technologies like artificial intelligence, virtual and augmented reality, and the challenges that their implementation faces; the commitment to sustainability and the implementation of sustainable initiatives; and the challenges related to copyrighting in digital formats distribution, piracy and the need to develop new regulations in this field.



Source: IFPI – Industry data. https://www.ifpi.org/our-industry/industry-data/ (last accessed: 30.09.2024)

Figure 1. Global recorded music revenues by segment in 2023

Conclusion

In conclusion, the global music industry is dynamic and it plays a significant role in the world economy. Recorded music as a main sector and its continuous growth has economic implications contributing to the digital economy development, job creation and economic growth of countries and regions, especially emerging markets, and income generation through intellectual property rights leading to an economic prosperity. The sector has cultural implications too with recorded music and its distribution serving as a cultural export, encouraging cross-cultural exchange between countries and regions, and thus contributing to the achievement of the social goals of sustainability. At the same time, challenges to the future evolution of the industry are new technologies and their accelerated development, as well as problems related to the regulation and protection of intellectual property rights. It is expected that in the future, global music industry will continue to evolve and maintain its significant place in the world economy.

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A COMPARATIVE STUDY OF THE PLANETARY PRESSURES – ADJUSTED HUMAN DEVELOPMENT INDEX (PHDI) IN THE EUROPEAN UNION AND OTHER REGIONS

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Abstract

Sustainable development has emerged as a significant issue in the late 20th century. This descriptive study compares the environmental pressures of countries and regions according to the Planetary Pressures-adjusted Human Development Index (PHDI). Thus, this paper aims to evaluate sustainable development through its environmental dimension. Data from this study were taken from Human Development Reports published by United Nations Development Programme. The findings indicate that the European Union (EU) is the region with the greatest environmental pressure. EU countries must implement more environmental policies in line with sustainable development.

Keywords: Planetary Pressures-adjusted Human Development Index, Sustainability, Human Development Index, The European Union

JEL: O150, Q560

Introduction

Since the Industrial Revolution, the structure of production has changed and the mass production system has led to the consumption of natural resources without considering future generations, and economic growth has been prioritized without considering environmental problems. However, nowadays, high levels of waste, climate change, ozone layer depletion, pollution or destruction of water resources, loss of natural habitat characteristics, and extinction of some species have led to a reconsideration of economic development (Ay, 2017, p. 89-90). Human-induced changes have made it difficult to protect the environment and living resources on a global scale. As a result of the emergence of serious threats to human survival, our place in the ecosystem has been reassessed and efforts have been made to find a new path that combines development with long-term survival (Shi et al, 2019, p. 1). Sustainable development is a relatively new concept that has gained prominence as a result of these efforts. Although development is generally associated with developing countries, emerging environmental

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problems affect the whole world. Therefore, the new approach also assigns various responsibilities to developed countries. The study has three main parts.

This study aims to assess sustainable development with its environmental dimension using data from the United Nations Development Programme's (UNDP) Planetary Pressures Adjusted Human Development Index (PHDI). The reports published by the UNDP contain data on a country-by-country basis and developing regions. However, there are no regional data for the EU, which includes developed countries. The purpose of the calculations in this study is to compare the pressures on the environment in the EU and in the developing regions. The first part explains the concept of sustainable development and the main stages in its historical development. In the following section, the PHDI and the method used to calculate it will be analyzed. Finally, the third section compares data for selected countries and regions.

Sustainable Development

It can be said that sustainability is a natural interest of economics since it is based on the recognition of the availability of scarce resources. However, it was not until the Club of Rome published its report Limits to Growth (1972) that the concept received significant attention. The report argued that the resources needed to sustain life would be exhausted within a few generations (Kuhlman and Farrington, 2010, p. 3437). Although definitions vary, sustainability generally refers to the ability to continue an activity or process indefinitely. Reasons for different definitions include the fact that the concept relates to economic, social, or environmental activities and has different meanings in different disciplines (Markulev and Long, 2013, p. 1).

Development, another term with a positive connotation, encompasses a range of measures to ensure economic growth and improve the quality of life. The process of development can be defined as a social process that improves the quality of life of underdeveloped societies through economic growth as well as socio-cultural and political transformation. From the Second World War until the 1970s, the primary focus of development was on economic growth. Nevertheless, it has since been acknowledged that the planet's finite resources will not support the current economic growth rates indefinitely (Rabie, 2016, p. 7 – 8). The concept of sustainable development, which represents a synthesis of these two concepts, emerged in this context.

In light of the growing population, the concept of sustainable development assumes greater significance, particularly given the dearth of resources to meet the needs and demands of a rapidly expanding global population. There is no consensus on a definition of this relatively recent concept, as it can be approached from different disciplinary perspectives. However, in essence, it can be defined as a form of development that can be sustained for an indefinite or a specified period. On the other hand, it can be defined as a development approach that aims to enhance living standards while ensuring the preservation of ecosystems and the avoidance of environmental issues such as climate change and species extinction (Mensah, 2019, p. 5-6). Since the final quarter of the

20th century, several significant historical events have contributed to the adoption of this approach.

The year 1972 saw the publication of the report Limits to Growth, which was followed by the convening of the Conference on the Human Environment, the inaugural international conference dedicated to environmental issues. While the conference did not significantly influence the trajectory of development plans, the establishment of the United Nations Environmental Programme (UNEP) was a noteworthy outcome. The organization's mission is threefold: to disseminate information and inspire nations; to enhance future generations' quality of life without endangering them; and to promote partnership through environmental leadership (Bac, 2008, p. 577). Another significant milestone at this point was the publication of the United Nations report entitled Our Common Future (1987), which followed the work of the World Commission on Environment and Development. The report asserted that humanity can achieve sustainable development in a manner that meets the needs of the present without compromising the ability of future generations to meet their needs (United Nations, 1987, p. 15).

In 1992, the United Nations Conference on Environment and Development was convened in Rio de Janeiro, resulting in significant outcomes. The program of action, Agenda 21, which sets out the conditions necessary for the establishment of a new economic and social order, was adopted (Baum, 2021, p. 17). Agenda 21 represents a global program and comprehensive guideline for sustainable development. It emphasizes international cooperation, consensus, and participation, and places responsibility on developed countries. Another significant outcome of the Conference was the Rio Declaration on Environment and Development, which comprises 27 principles of sustainable development. The document proposed that countries whose activities result in pollution should bear the associated costs. Furthermore, developed countries have been tasked with the responsibility of providing technology and financial resources (Klarin, 2018, p. 75).

Finally, in 2015, the United Nations published the report „Transforming Our World: The 2030 Agenda for Sustainable Development". The report identifies 17 sustainable development goals that must be achieved by 2030. To protect the needs of future generations, a series of decisions have been made concerning the sustainability of natural resources, the realization of progress in harmony with nature, sustainable production and consumption, and so forth. Furthermore, it was declared that all countries would collaborate to ensure the security of our planet (United Nations, 2015, p. 3 – 4).

There is a consensus relation to sustainable development has three main dimensions: economic, social, and environmental. The economic dimension of sustainability, which includes quantitative indicators related to the economy, encompasses a production system that takes into account the needs of future generations and financially prudent decisions for sustainability. The social dimension asserts that the pursuit of development and the fight against poverty should not result in environmental degradation or economic instability. As a system of social organization that has the objective of reducing poverty, it embodies concepts such as accessibility, participation, and equality (Mensah, 2019, p. 8 – 10).

The environmental dimension encompasses the maintenance of a stable resource base for energy. It includes the prevention of the overexploitation of renewable resource systems along with the consumption of non-renewable resources to the extent that is consistent with the investment in the development of adequate substitute energy resources. These measures are aimed at preserving biodiversity, maintaining atmospheric stability, and sustaining other ecosystem functions (Harris, 2003, p. 1). There is a significant connection between the acquisition and utilization of energy and the environmental dimension of sustainable development. Indeed, the majority of the 17 targets established in 2015 are either directly or indirectly associated with energy. Accordingly, it can be reasonably deduced that there is a correlation between the sustainability of energy and the success of the Sustainable Development Goals. At this point, sustainable energy development has emerged as a means of minimizing the environmental impact of energy consumption, while also ensuring the availability of sufficient energy for current and future generations (Jedrzejczak-Gas et al, 2024, p. 2 – 3). Energy use is a crucial element of the PHDI, which enables for evaluation of sustainable development in terms of its environmental impact.

Planetary Pressures-adjusted Human Development Index (PHDI)

In fact, the official publication of the PHDI as of 2020 represents another significant advancement in environmental awareness on the part of the UN (UNDP, 2020). The PHDI is an index that measures human development in relation to the pressures exerted on the planet. In the absence of pressure on the planet, the Human Development Index (HDI) and PHDI values are equal. According to the intensification of pressures on the planet, the PHDI value declines below the HDI value (UNDP, 2024a, p. 14). The PHDI is comprised of two indicators: carbon dioxide emissions per capita and material footprint per capita (UNDP, 2024b, p. 305). The per capita carbon dioxide emission value is calculated by dividing the total carbon dioxide emissions resulting from activities such as the use of gas, coal, oil, etc., by the average population for a given year. The source of the relevant data is the Global Carbon Project (GCP) (UNDP, 2024a, p. 14).

On the other hand, the material footprint per capita encompasses biomass, fossil fuels, metal ores, and non-metal ores. The index in question is designed to calculate the final domestic demand of a country. Firstly, the import value and the quantity of raw materials extracted domestically are aggregated, and then the export value is deducted. The source of data used in the calculation is UNEP. The arithmetic mean of the two aforementioned indicators is used in the calculation of the adjustment factor for planetary pressures. A low value indicates that greater pressure is exerted on the planet (UNDP, 2024a, p. 14).

The calculation of the PHDI value is performed in three stages. Firstly, the carbon dioxide emission index and material footprint index are converted into a value between

0 and 1 using the measured minimum and maximum values. Aforementioned both indicators are represented by the letter „j“ and are calculated using the same formula (UNDP, 2024a, p. 15):

$$„A_j \text{ Index} = (\text{Maximum}_j - \text{Observed Value}_j) / (\text{Maximum}_j - \text{Minimum}_j)“ \quad (1)$$

In the calculation, the minimum values are set at zero, while the upper limit corresponds to the maximum value observed at the global level since 1990. The observed approach of the realized values for both indicators towards the maximum indicates an intensification of the pressures exerted on the planet. Concomitantly with the augmentation of the values of the indicators, as a consequence of the method of calculation, the PHDI assumes a diminished value. Therefore, there is a greater loss in HDI value (UNDP, 2024a, p. 15).

In the second step, the adjustment factor for the planetary pressures indicated by the letter 'A' is calculated. As the pressures on the planet decrease, the 'A' value increases, resulting in a closer alignment with the HDI. The requisite formulation for attaining the value 'A' can be demonstrated as follows (UNDP, 2024a, p. 15):

$$„A = (\text{Carbon Dioxide Emissions Index} + \text{Material Footprint Index}) / 2“ \quad (2)$$

Finally, in the third stage of the process, the PHDI value is reached through the application of a multiplication operation to the HDI and 'A' values. The third step is illustrated in Formula 3, while the calculation for the percentage change in HDI value is provided in Formula 4 (UNDP, 2024a, p. 15):

$$„\text{PHDI} = \text{HDI} * A“ \quad (3)$$

$$„\text{Difference From HDI Value} = [(\text{HDI} - \text{PHDI})/\text{HDI}] * 100“ \quad (4)$$

Comparison of Data According to PHDI

Tables 1 and 2 present data for the 27 EU member states, Turkey, the EU average, six developing regions, and the world average. In the UNDP Human Development Reports, official datasets are available for three different years. Table 1 presents HDI, PHDI, and the deviation from the HDI value. Given that the PHDI value is contingent upon the human development level of the countries in question, due to the specific calculation method employed, it would be appropriate to analyze the data on divergence from the HDI value to interpret the net impact of the pressures created on the environment. Table 2 presents data on the adjustment factor for planetary pressures, the carbon dioxide emission index, and the material footprint index. At this juncture, an evaluation of the adjustment factor for planetary pressures can be conducted, given that it provides the arithmetic mean of the two indices.

Upon analysis of Table 1, it becomes evident that there are notable differences between countries and regions. While Luxembourg, Estonia, and Finland exhibit the highest values in terms of deviation from the HDI value, Portugal, Romania, and Croatia represent countries with the lowest values. On the other hand, although Turkey is below the EU average, it is above the world average. At the regional level, the deviation of the HDI data for East Asia and the Pacific, Europe and Central Asia, and the EU-27 regions exceed the world average. In light of these data, it is important to state the significant environmental pressures exerted by these regions on the planet. Conversely, the Sub-Saharan Africa and South Asia regions exhibit values that are markedly lower than the global average. The very low level of industrialization and urbanization, particularly in sub-Saharan Africa, may explain this situation.

Table 1. PHDI Data by Selected Countries and Regions-I

Countries/Regions	HDI			PDHI			Difference From HDI Value (%)		
	2019	2021	2022	2019	2021	2022	2019	2021	2022
Austria	.922	.916	.926	.771	.766	.789	16.4	16.4	14.8
Belgium	.931	.937	.942	.800	.742	.803	14.1	20.8	14.8
Bulgaria	.816	.795	.799	.745	.708	.720	8.7	10.9	9.9
Crotia	.851	.858	.878	.779	.764	.807	8.5	11.0	8.1
Cyprus	.887	.896	.907	.767	.708	.803	13.5	21.0	11.5
Czechia	.900	.889	.895	.768	.748	.782	14.7	15.9	12.6
Denmark	.940	.948	.952	.824	.803	.839	12.3	15.3	11.9
Estonia	.892	.890	.899	.711	.684	.766	20.3	23.1	14.8
Finland	.938	.940	.942	.770	.731	.787	17.9	22.2	16.5
France	.901	.903	.910	.801	.803	.823	11.1	11.1	9.6
Germany	.947	.942	.950	.814	.804	.833	14	14.6	12.3
Greece	.888	.887	.893	.768	.792	.809	13.5	10.7	9.4
Hungary	.854	.846	.851	.781	.755	.769	8.5	10.8	9.6
Ireland	.955	.945	.950	.833	.682	.814	12.8	27.8	14.3
Italy	.892	.895	.906	.792	.813	.825	11.2	9.2	8.9
Latvia	.866	.863	.879	.777	.716	.782	10.3	17.0	11.0
Lithuania	.882	.875	.879	.746	.679	.748	15.4	22.4	14.9
Luxembourg	.916	.930	.927	.495	.645	.685	46.0	30.6	26.1
Malta	.895	.918	.915	.794	.720	.806	11.3	21.6	11.9
Netherlands	.944	.941	.946	.794	.745	.769	15.9	20.8	15.9
Poland	.880	.876	.881	.752	.753	.780	14.5	14.0	11.5
Portugal	.864	.866	.874	.780	.792	.807	9.7	8.5	7.7
Romania	.828	.821	.827	.760	.738	.759	8.2	10.1	8.2

Countries/Regions	HDI			PDHI			Difference From HDI Value (%)		
	2019	2021	2022	2019	2021	2022	2019	2021	2022
Slovakia	.860	.848	.855	.720	.738	.776	16.3	13.0	9.2
Slovenia	.917	.918	.926	.800	.769	.832	12.8	16.2	10.2
Spain	.904	.905	.911	.795	.819	.839	12.1	9.5	7.9
Sweden	.945	.947	.952	.817	.803	.839	13.5	15.2	11.9
Türkiye	.820	.838	.855	.746	.741	.783	9.0	11.6	8.4
Arab States	.705	.708	.704	.666	.646	.658	5.5	8.8	6.5
East Asia and the Pacific	.747	.749	.766	.676	.657	.683	9.5	12.3	10.8
Europe and Central Asia	.791	.796	.802	.728	.713	.743	8.0	10.4	7.4
EU-27*	.897	.896	.903	.769	.749	.792	14.2	16.3	12.1
Latin America and the Caribbean	.766	.754	.763	.720	.695	.716	6.0	7.8	6.2
South Asia	.641	.632	.641	.622	.609	.622	3.0	3.6	3.0
Sub-Saharan Africa	.547	.547	.549	.539	.536	.539	1.5	2.0	1.8
World	.737	.732	.739	.683	.667	.685	7.3	8.9	7.3

Source: UNDP, 2020; UNDP, 2022; UNDP, 2024.
* The calculation was performed by the authors.

Table 2. PHDI Data by Selected Countries and Regions-II

Countries/Regions	Adjustment Factor for Planetary Pressures			Carbon Dioxide Emissions Index			Material Footprint Index		
	2019	2021	2022	2018	2020	2021	2017	2019	2022
Austria	.837	.836	.852	.889	.902	.903	.784	.771	.801
Belgium	.859	.792	.852	.876	.895	.892	.842	.689	.811
Bulgaria	.913	.891	.901	.910	.922	.920	.916	.860	.883
Crotia	.916	.890	.920	.936	.940	.944	.895	.841	.895
Cyprus	.865	.791	.886	.910	.922	.926	.820	.659	.845
Czechia	.853	.841	.874	.858	.880	.880	.849	.802	.868
Denmark	.876	.847	.881	.913	.934	.934	.839	.759	.828
Estonia	.797	.768	.852	.788	.885	.898	.806	.651	.806
Finland	.821	.777	.835	.878	.897	.911	.763	.658	.760
France	.889	.890	.905	.926	.938	.938	.853	.841	.872
Germany	.859	.854	.876	.869	.888	.894	.849	.819	.859

Countries/Regions	Adjustment Factor for Planetary Pressures			Carbon Dioxide Emissions Index			Material Footprint Index		
	2019	2021	2022	2018	2020	2021	2017	2019	2022
Greece	.865	.893	.906	.899	.927	.928	.831	.859	.885
Hungary	.915	.893	.904	.926	.927	.935	.903	.858	.873
Ireland	.872	.722	.857	.884	.902	.902	.859	.542	.813
Italy	.888	.908	.910	.920	.927	.926	.857	.890	.895
Latvia	.897	.829	.890	.947	.948	.950	.848	.711	.830
Lithuania	.846	.776	.851	.931	.926	.935	.762	.626	.767
Luxembourg	.541	.693	.739	.773	.810	.828	.308	.577	.651
Malta	.887	.784	.881	.948	.947	.960	.826	.621	.801
Netherlands	.842	.791	.842	.864	.883	.896	.819	.700	.788
Poland	.855	.859	.885	.870	.885	.887	.839	.834	.883
Portugal	.903	.914	.924	.929	.942	.949	.878	.886	.898
Romania	.917	.898	.917	.946	.946	.948	.889	.851	.887
Slovakia	.837	.870	.907	.905	.918	.916	.769	.822	.899
Slovenia	.873	.838	.898	.901	.912	.920	.845	.764	.877
Spain	.880	.905	.921	.918	.935	.937	.842	.875	.906
Sweden	.865	.848	.881	.941	.944	.952	.789	.751	.811
Türkiye	.910	.885	.916	.926	.932	.930	.894	.837	.902
Arab States	.944	.912	.935	.931	.937	.940	.958	.885	.929
East Asia and the Pacific	.905	.877	.891	.921	.916	.919	.890	.838	.863
Europe and Central Asia	.920	.986	.927	.921	.924	.931	.920	.869	.923
EU-27*	.858	.837	.880	.898	.914	.919	.818	.760	.840
Latin America and the Caribbean	.940	.921	.939	.960	.966	.966	.919	.876	.912
South Asia	.971	.963	.970	.972	.973	.975	.970	.952	.965
Sub-Saharan Africa	.985	.980	.982	.988	.989	.991	.982	.971	.973
World	.927	.912	.926	.934	.937	.941	.919	.885	.911

Source: UNDP, 2020; UNDP, 2022; UNDP, 2024.
* The calculation was performed by the authors.

On the other hand, it is important to assess the regions that exert the most pressure on the planet within themselves, as they exhibit values that exceed the global average. The deviation in HDI values among EU-27 countries is higher than that observed in East Asia and the Pacific and Europe and Central Asia regions. The argument is put forth that capital and polluting industrial production have been relocated to the East Asia and Pacific region as a consequence of the process of globalization and the implementation of neo-liberal policies since the 1980s. Conversely, it is asserted that European countries have undergone a process of deindustrialization, and the services sector assuming a primary position. However, the data indicate that the environmental pressures of the EU-27 are higher than those of developing and rapidly industrializing countries.

Furthermore, the data presented in Table 2 exhibits a parallel trend with that observed in Table 1. The countries and regions exhibiting the greatest deviation from the HDI are those with the lowest adjustment factor for planetary pressures. The EU-27 region exhibits the lowest adjustment factor for planetary pressure, attributable to its low carbon dioxide emissions and material footprint indices. The relatively low values of these indices indicate that EU countries have high carbon dioxide emissions and a high demand for raw materials, including metals, non-metal ores, and fossil fuels. This is a consequence of their dependence on traditional energy sources.

Conclusion

The concept of sustainable development is a significant contemporary issue for countries and international organizations. In this regard, significant progress has been made on a global scale since the final quarter of the 20th century. It can be argued that the 2020 UNDP Human Development Report marks another notable advance in environmental awareness with its official sharing of PHDI values. This index allows the comparison of the pressures that countries and regions exude upon the planet. Thus, possible to evaluate sustainable development in terms of its environmental dimension.

A review of UNDP data reveals significant disparities in environmental pressures across EU member states and between different regions on a global scale. Nevertheless, despite the considerable divergence in values observed across EU member states, when considered collectively, the EU-27 represents the region with the greatest environmental pressures. In fact, environmental pressures are often associated with countries that are undergoing development processes and industrializing. Conversely, the pressure exerted on the planet by the EU countries, where the services sector is of particular significance and which are claimed to have transferred their less environmentally friendly industrial production to the East with globalization, is even higher than that observed in East Asia and the Pacific. It can thus be concluded that the EU-27 countries continue to exhibit elevated levels of carbon dioxide emissions and a pronounced reliance on conventional energy sources. As outlined in the conferences and documents that represent the landmarks in the history of sustainable development, also developed countries must bear certain responsibilities. The EU must implement more environmentally conscious policies to reduce carbon dioxide emissions and augment the utilization of renewable energy sources, in addition to assisting developing countries.

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DEGLOBALIZATION OR THE TRANSFORMATION OF GLOBALIZATION: THE EVOLUTIONARY DILEMMA

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Abstract

Globalization does not end; it has evolved and will continue to evolve for the foreseeable future. Trade barriers for services are significantly higher and falling faster than for goods, indicating that growth in services trade is likely to persist for many years and will continue to outpace trade growth with goods, suggesting that the future of trade is in services. Support for globalization by developing countries will become an important counter to the deglobalization promoted by some developed Western countries. The network of society formed under the paradigm of information technology will be a very important source to the development of globalization. Due to the effect of cultural globalization, the chance of the coming deglobalization also decreases.

Keywords: Globalisation, Deglobalisation, Connotation, Convergence, Glocalisation, Slowbalisation

JEL: F1, F3, F4, G2

1. Globalization or Deglobalization: The Evolutionary Dilemma

The global economy is facing new challenges, including overcoming the slowdown in the economies of the world economy and minimizing the risks due to the depressed world economy. In addition, states must manage international business and trade in the face of increasing deglobalization. Globalization is a process of increasing interdependence and integration into a world economy. While deglobalization, the second object in the study, is the reverse context of globalization and is a process of decreasing interdependence and integration between nation states in the world economy.

Scholars argue that the driving forces toward deglobalization include trade imbalances, political pressures, populism, high unemployment, and trade tensions between countries. The coronavirus disease pandemic has been widespread in the first half of 2020, shrinking the global economy due to reduced movement of goods and services. Due to these circumstances, there is a high risk that the world economy will go into depression.

However, history shows that as the cyclical manifestation of globalization in the world economy, deglobalization emerges. Supporters of free trade promote international trade and business activities, while opponents want to protect assets and security from the problems or risks of globalization. Global upheavals affect different regions of varying magnitude. Some regions are particularly strongly affected by global shocks, some are affected with smaller ranges, and some appear not to be affected at all (Van

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Bergeijk, 2017). From Trumpism to Brexits, there is a tendency for deglobalization to be focused on developed countries, which is not a new development, as the debate between globalization and free trade and deglobalization with trade protections continues.

The key research question, the aim of the study, is how the recent phenomenon of deglobalization differs from those of the 1930s and 2008. Moreover, it is important to define the key factors, to trace the evolution in determining the intensity of the trend of deglobalization in the future. The coronavirus disease in 2020 makes the world economy more protected and increases barriers to goods and services and financial investment. In terms of international business management and the current global value chain (GVC), determining the appropriate reconfiguration of the GVC and business strategy is essential.

The literature related to deglobalization is limited. The research focus is on the conceptual studies of Stiglitz (2007). The literature shows that the antecedents of deglobalization come only from economic factors and later political and social dimensions are included. The historical cyclical pattern between globalization and deglobalization explored by Jones (2005) represents ongoing debates regarding its origins, spread, and consequences. Most Western nations belonging to the Organization for Economic Cooperation and Development (OECD) countries support free trade and capitalism, as well as international trade and entrepreneurship, as key drivers of economic growth. After the financial crisis in 2008 the world faces the challenges of income inequality, political populism and new international political threats. Globalized free trade is controversial in nonprofits organisations because free trade with capitalism accelerates economic disparities between rich and poor, developed and underdeveloped countries. South Korea, for example, has been putting a lot of effort into export-oriented economic growth policies that are proving successful. While most trade-intensive countries face new challenges in order to overcome the pressures of deglobalization.

2. Literature review

Globalization is closely related to multinationalism and the integration of the international economy. Globalization, as a process, means the importance of standard procedures, free trade, international compliance and international investment. International organizations, such as the World Trade Organization (WTO), the International Monetary Fund (IMF), the United Nations Conference on Trade and Development (UNCTAD), are considered important for global trade and economy. Criticism has been leveled against globalism because of the inequality and injustice that has become a critical problem among trading nations. This gives rise to regionalism, which leads to regional cooperation such as Free Trade Agreements (FTAs) increasing at the country level. Moreover, regional integration agreements such as the Association of Southeast Asian Nations (ASEAN), the European Union (EU) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) reflect a shift away from multinationalism and globalism.

This reaction to globalization creates deglobalization, which can lead back to globalization. Globalization and deglobalization have cyclical competition everywhere in history. Jones (2005) points out that the first global economy was from 1840-1929. Then, the Depression and World War I caused the first deglobalization of 1929-1979. During this period, the world suffered from World War II, Western nations worked to remove trade barriers, and many countries became members of the WTO. The second globalized economy is after 1979. and continued until the global financial crisis in 2008. Distrust of financial systems and global companies makes nations worry about income inequality and division. Although international trade transcends the borders of economies, powerful individuals as well as small and medium-sized enterprises (SMEs) feel that they are not being paid fairly. This attracts the attention of both the public and politicians, and the crisis creates a new model of deglobalization.

Stiglitz (2007) argues that developing economies do not grow at all and demonstrates that through tariffs, subsidies, an overly complex patent system and pollution, the world is both economically and politically destabilized. Therefore, the study of incomplete markets can make corrective government policies desirable. This reflects the negative aspects of globalization. Since then, there have been several observations indicating deglobalization.

First, tariff barriers to imports are strengthened by developed countries, and the imposition of tariffs is a relatively easier policy for trade management agencies. Specifically, the Trump administration in the US is imposing high tariffs on Korea, China and others that enjoy a trade surplus with the US.

Safeguards have rarely been used and some governments use „grey area“ measures to protect their industries. Since the beginning of 2014, the total number of safety cases worldwide has been decreasing, but has again shown an increasing trend since 2018. this way. On May 10, 2019 US raises import tariffs from 10 to 25% on USD 200 billion of Chinese goods. A trade war is brewing between the world's two largest economies.

Second, non-tariff barriers (NTBs) are imposed through different methods. NTBs refer to restrictions that arise due to difficult or costly prohibitions, conditions or specific market requirements for importing or exporting products. NTBs include the unfair and incorrect application of non-tariff measures such as sanitary and phytosanitary (SPS) measures and other technical barriers to transactions (TBTs). NTBs to trade can arise from import bans, general or product-specific quotas, „buy domestic“ policies, overvalued currency, restrictive licenses, complex regulatory environments, import licenses, seasonal import regimes, and the like.

Third, in recent decades the global economy has tended to be structured around GVCs, which are responsible for a large percentage of global trade, production and employment (Pla-Barber and Villar, 2019). The GVC is reconfiguring global trade in terms of actors and comparative advantages. In the global economy, more and more value chains are being restructured, driving advances in living standards in emerging markets while increasing income inequality in developed countries (Dollar, 2001).

According to Bello (2004), deglobalization has 14 characteristics: (1) production for the domestic market; (2) subsidies at the national level; (3) a strong trade policy; (4) industrial policy, including subsidies, tariffs, and trade to strengthen the manufacturing sector; (5) long-delayed measures for equitable income redistribution; (6) de-emphasis on growth but emphasis on increasing quality of life; (7) transformed energy and transport systems into decentralized systems based on renewable sources; (8) maintained a healthy balance between the capacity of the country and the number of its population; (9) environmentally beneficial technology; (10) a gender perspective to ensure gender equality; (11) strategic economic decisions towards the market or towards the technocrats; (12) civil society monitoring and private sector and state oversight and process to be institutionalized; (13) property transformed into a mixed economy; and (14) replaced centralized global institutions with regional institutions.

3. Process Drivers

The first wave of modern globalization began in the second half of the 19th century. Colonial expansion led to global trade. However, the First World War at the beginning of the 20th century caused the collapse of this wave and provoked the first deglobalization. After the Second World War, some developed Western countries became the reason for the creation of three major world economic organizations: the World Bank, the International Monetary Fund and the World Trade Organization. Under the trinitarian effect of „world currency – international finance – world trade", developed Western countries are provoking *the second wave of globalization*. Despite the two oil crises (1973 – 1974, 1979 – 1980), they caused serious economic shocks in Western countries, and the global economy , dominated by Western countries, also suffered the most serious crisis after World War II. Therefore, after two oil crises, the second deglobalization began quietly. The first oil crisis began from the Yom Kippur War.(Yi Zheng, 2022) The second oil crisis started after the political turmoil in Iran and then was affected by the Iran-Iraq war.Therefore, both the beginning of the first and the second deglobalization can be mainly due to the political tension and military conflicts. Neither country appears to be voluntarily and actively promoting these two deglobalizations. Thus, these two times of deglobalization appear to be passive and accidental. Compared with the current wave of deglobalization, which is actively promoted by several developed capitalist countries, active in previous deglobalizations, it is difficult to draw a firm conclusion that this active impulse can have enough power, like wars, to compete with the power of globalization.

Globalization has different dimensions. In addition to the economic dimension, this is also reflected in politics, culture and society. With the development of economic globalization, more and more people can exchange information and products more conveniently. It also promotes the integration of cultures of different countries, although economic globalization will have some impact on cultural globalization. For example, the global market contributes to the consumerism of many areas of the globe, while cross-border communications, transportation and networks stimulate the cultural integration of different nations. The cultures of different nations can merge and influence each other, although global culture will not simply merge. As Hofstede (1984) says, culture can be defined as the collective programming of the mind that distinguishes members of one category of people from those of another culture. Each type of culture has a unique nature and can be used to distinguish members of two different nationalities. The uniqueness of each culture is also difficult to be replaced by other cultures.

Another typical example is language. With the dominance of developed Western countries in economic globalization, the importance of the English language is increasing, especially on the Internet. Although a large number of non-English speakers learning English, they still speak their native language instead of English in their daily lives when communicating with people of the same ethnic group. As a tool for transmitting a nation's culture, language can give people who speak the same language a common sense and national cultural identity. Unlike the heritage of a people's native language, the unique culture of that nation will hardly be destroyed. As Herkenrath et al. (2005) consider convergence and divergence as well as 'glocalization' occur simultaneously. The connotation of cultural globalization cannot be generalized. This does not mean that global culture is fully integrated, it includes the phenomena of cultural convergence, divergence and glocalization. Therefore, the outcome of cultural globalization is actually uncertain. The uniqueness of each national culture can act as a resistance to the integration of global cultures, and this intransigence can also act as a counter-globalization force. But on the other hand, cultural convergence and glocalization can be a force for globalization. Moreover, as economic globalization continues, there is always the possibility of convergence of global culture. When the convergence, divergence and glocalization of global culture work simultaneously, although the cultural differences of different nations of the world have some positive effect on deglobalization, it is not certain that such effects are able to overshadow the driving forces of globalization.

4. Development of Globalization

The development of Globalization goes through five eras

The following elements can be identified as components of globalization: cross-border flows of trade, investment, data, ideas and technology, people, including workers, tourists and students. Global trade, measured by the ratio of world exports to world GDP, is a proxy for economic integration. There are five periods of modern globalization.

In the first period from 1870-1914. economic integration increased, driven by the steamship and other advances that allowed more goods to move more cheaply between markets.

Globalization reversed itself *in the second period*, from the outbreak of the First World War in 1914 until the end of World War II in 1945. World War I caused continued economic dislocation, which included Russia's withdrawal from world trade after the Communist revolution in 1917, the Spanish flu pandemic of 1918, monetary instability in the early 1920s, new immigration restrictions, the Great Depression, beginning in 1929, and the outbreak of protectionism in the 1930s. This turmoil reduces integration and the world economy falls into crisis.

Economic integration was restored *in the third period*, the three decades after World War II. American leadership is helping to create new institutions for economic cooperation, such as the General Agreement on Tariffs and Trade, allowing countries to reopen their economies to trade and investment. These steps help usher in a golden era of growth.

The geographic scope of the third phase—limited to the United States, Western Europe, Japan, and a few other countries—is limiting how far global economic integration can go. The Soviet bloc of communist states and China are the non-market economies that do not participate for political and economic reasons. The developing world in Latin America, South Asia and Africa chooses its own path of import substitution while remaining relatively isolated.

In the fourth period, from the 1980s to the financial crisis of 2008, economic integration rose to a historically unprecedented global scale. Led by China and India, developing countries are beginning to remove trade barriers. The Soviet bloc in Eastern Europe moved towards democracy and economic liberalization with the fall of the Berlin Wall in 1989, followed by the collapse of the Soviet Union in 1991. Changes in technology – the shipping container and improvements in information and communication technology – are also fueling integration and leading to the creation of global supply chains. Global growth is strong and global poverty has declined significantly.

„Slowbalisation" or Peak Globalization

Measured by trade flows, this fourth era of globalization appears to have peaked in 2008. The ratio of world trade to GDP has been falling since the Great Recession. World trade recovered in 2010 from the 2009 shock. While the world economy is *in a fifth historical period*, sometimes called „slowbalisation".

In recent decades, trade has tended to grow faster than world output, while trade growth has been unusually weak in recent years. The volume of world trade actually declined in 2019, even though the world economy grew relatively steadily.

There are a number of factors at play. The growth of global value chains – the spread of supply networks between countries – is leveling off. The reform agenda has stalled around the world. Under President Xi Jinping, with policies to promote the local population and develop leading industries (the Made in China 2025 initiative), China is beginning to turn inward and exports as a share of its GDP are declining. China remains an export power, but from 31 percent in 2008. to just 17 percent in 2019, as Nicholas Lardy notes. (Irwin, 2020)

Under President Donald Trump, the United States is adopting an „America First" policy, moving away from trade liberalization (withdrawing from the Trans-Pacific Partnership) and moving toward protectionism. The Trump administration is imposing tariffs on steel and aluminum imports ostensibly for national security reasons, spreading trade barriers in the other direction.

The United States also started a trade war with China over its unfair trade practices, significantly reducing bilateral trade. President Trump's economic advisers have equated economic security with national security and have spoken of a desire to sever the supply chains that make the United States dependent on China. Tensions between the United States and China have loosened their relationship in some cases, known as the „decoupling“ between the world's two largest economies. Separation does not mean that integration shrinks to nothing, only that it is significantly reduced.

Thus, even before the pandemic hit, several factors were reducing globalization.

The pandemic – an impulse towards a deglobalization trend

The COVID-19 pandemic is definitely adding further momentum to the deglobalization trend. The World Trade Organization predicts that global trade will fall between 13 and 32 percent in 2020, far more than the expected decline in global GDP.

More important is how countries begin to embrace economic integration. French President Emmanuel Macron stressed that the coronavirus is „changing the nature of the globalization we have lived with for the last 40 years“, adding that it is „clear that this type of globalization is reaching the end of its cycle“. (Irwin, 2020)

The pandemic is heightening concerns around the world that supply chains have gone too far. Export bans have been imposed on inadequate domestic production of medical equipment, personal protective equipment and pharmaceuticals. Such policies exacerbate scarcity, the opposite of the expected effect. (During the 2012 food crisis, export bans drove up world prices and led to short-term shortages.) Protectionism is proving no substitute for stockpiling and preparedness, which have been lacking in recent years.

Past experience shows that when some countries begin to restrict trade in critical goods, others are likely to follow suit. This is nothing new. As Adam Smith observed in his Wealth of Nations long ago: „The very bad policy of a country may render it somewhat dangerous, and imprudent to ascertain what would otherwise be the best.“ (Irwin, 2020)

Experience also shows that fear causes states to turn inward. Many countries are now rethinking trade dependence. Phil Hogan, the European Union's Trade Commissioner said, „we need to think about how to ensure the strategic autonomy of the EU.“ Scott Morrison, the Prime Minister of Australia told Parliament: „Open trade has been a fundamental part of our prosperity for centuries. But we also need to look carefully at our domestic economic sovereignty.“ Japan is also beginning to explore how to break its dependence on China for supply chains and produce more at home.

The risk of overreaction and a slide into protectionism is compounded by the failure of leadership in the United States, leaving a vacuum in the global trading system. The lack of a coordinated and joint response could accelerate destructive „beggar-thy-neighbor policies“ not seen since the 1930s.

The world economy is at a critical turning point in history where fears of dependence on others are growing. An inward turn does not mean the end of globalization, only a partial reversal. But undoing the resulting damage is likely to prove difficult.

5. Is the world economy deglobalizing?

Many observers say yes. Irwin (2020), for example, writes: „The Great Recession of 2008–2010 marked a historic turning point in terms of global economic integration. In response to the health and economic crisis, policymakers seem poised to take targeted steps to strengthen the movement toward deglobalization.“

The main conclusion is that while the intensity of trade in goods reached its peak in 2008, the ratio of world trade in services to gross domestic product (GDP) continues to grow. Services exports now account for over a fifth of world export earnings. (Baldwin, Freeman, Theodorakopoulos, 2023) In *short, globalization is not over; it has evolved and will continue to evolve for the foreseeable future.*

Globalization is driven by firms buying or producing goods in one nation to sell them in another for profit. In other words, arbitrage drives globalization. Arbitrage is profitable when international differences in relative costs exceed the cost of selling across a border. Globalization will continue as long as international arbitrage is profitable.

Although there is considerable convergence in the relative costs of producing different goods internationally, and geo-economic tensions may raise barriers to trade in goods, there are still large differences in the relative costs of producing services by different nations. Since services tend to be labor intensive, the main relative cost differences are determined by relative wage differences (adjusted for productivity). Differences in wages also appear to be large. A wage of USD 5 an hour for a 2,000-hour work year yields an income of USD 10,000, which corresponds to a middle-class life for an office worker in most global economies, but is far below the minimum wage in advanced economies. In addition, digital technology is making office work increasingly cheaper in one nation, relative to another. This is the main reason to believe that the end of globalization is very far away.

The end of the period of rapid globalization – the second decoupling – which began around 1990 has attracted widespread attention and is clearly supported by the data. Some commentators go further and argue that the world economy is actually deglobalizing, a position that is clear in the title of Rana Foroohar's 2022 book, Coming Home: The Road to Prosperity in a Post-Global World (Foroohar, 2022).

Others argue that the deglobalization view misses the key facts that show that globalization has developed, not ended. The ratio of world trade in goods to GDP peaked 15 years ago, but trade in services continues to flourish, accounting for a fifth of international trade. (Baldwin, Freeman, Theodorakopoulos, 2023) The trend towards continued trade in services can be argued *for four reasons. The first* is that barriers to trade in services are much higher than barriers to trade in goods, but they are falling faster. *The second* is that digital technologies reduce barriers to trade in services. *The third* –

demand is not a limiting factor, nor supply, as the fourth. *The bottom line is simple: trade barriers for services are significantly higher and falling faster than for goods, indicating that growth in trade in services is likely to persist for many years and will continue to be faster. than the growth of trade in goods. In short, it suggests that the future of commerce is in services. Although the share of world trade in goods may be declining, the rise in the intensity of trade in services and the growing importance of* intermediate services suggests that the end of globalization has been greatly exaggerated.

The possibility of deglobalization is very small comparing which side of the driving force (of globalization or deglobalization) is powerful. First of all, with the development of globalization, developing countries are gradually growing, and the world system is gradually emerging from the unilaterally dominant framework of developed capitalist countries. Developing countries are more in favor of globalization and more hope to promote globalization when they can benefit from globalization. *Support for globalization by developing countries will become an important counter to the deglobalization promoted by some developed Western countries.* In addition, the arrival of the information age cannot be reversed, and the development of information technology is also unstoppable. *The network of society formed under the paradigm of information technology will be a very important source to the development of globalization.* It will connect people and things around the world more closely. As long as information technology is still developing and the networked society is still developing, deglobalization is almost impossible. *Finally, due to the effect of cultural globalization, the chance of the coming deglobalization also decreases.*

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LIQUIDITY FORECASTING AND RESOURCE MANAGEMENT: KEY FACTORS FOR EFFICIENT REVENUE AND EXPENDITURE CONTROL

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Abstract

International bodies are encouraging Albania to continue financial sector and budget reform, address arrears, improve public investment and management of fiscal risks. This research paper will overview the challenges and the improvement of legislation of public finance in Albania, transparency and public involvement are essential for improving the country's financial situation.

Financial analysis methods, revenue management, and compliance with ethical and legal standards are crucial for public organizations. However, financial management in public organizations faces unique challenges due to government operations' complexity, transparency, and limited resources.

Budget transparency has increased, but challenges remain in the transparency of financial management of public organizations, especially local governments. The report also highlights the need for clearer and more transparent assessment of public investment projects and PPPs to improve the efficient use of public resources and reduce fiscal risks. Liquidity forecasting and resource management are also crucial for efficient revenue and expenditure control.

To ensure sustainable economic development and financial stability, the Albanian government should develop a medium-term strategy for improving public finances, strengthen the management of public investments, improve liquidity forecasting and resource management, control arrears, improve budget transparency, increase the role of the Ministry of Finance reduce fiscal risks from PPPs, and conduct a detailed analysis of large contingent liabilities. These recommendations aim to address challenges and improve financial management in Albania, ultimately improving the country's financial stability and economic development.

Keywords: economic development, public finance, investments, transparency, management.

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Introduction

Financial control in the public sector is an integral process involving management and personnel to address risk and ensure the achievement of objectives such as efficient, effective operations, accountability, compliance with laws, and resource safeguarding. This dynamic process adapts to organizational changes, involving all levels of management.

Improved Governance and Accountability Structures Frameworks: this hypothesis aims to analyze the relationship between accounting, auditing, and public finance management in the framework of increasing transparency and accountability. Since the strengthening of accounting standards and practices within public financial management systems leads to more accurate financial reporting, the hypothesis suggests that auditing serves as a mechanism to verify the accuracy and reliability of these financial reports, assuring stakeholders, including the public, investors, and government oversight bodies. Transparency in public finances and accountability foster trust in the general public, leading to better governance and a more effective allocation of financial resources.

Harmonization of Local Policies to Promote Financial Transparency: This hypothesis is used to evidence the theory of guaranteeing financial integrity through the harmonization of regulatory frameworks, it is necessary to connect accounting, auditing, and management of public finances. Their regulatory harmonization increases confidence in public financial systems, which aims at stability in the economy. Governments can improve the reliability and comparability of financial information by providing better oversight and evaluation of public finances and guiding stakeholders and policymakers to make more informed decisions. The analysis of this hypothesis will highlight that standardized audit processes are carried out to support financial management as well as help to detect and mitigate irregularities.

Accounting information plays a crucial role in managing the public finances of a local government. It involves identifying funding sources and analyzing basic and capital expenditures. Local governments receive funding from local taxes, central government transfers, and other general revenue. This structure clearly shows their finances and affects the community's care and priority. The government's finances are affected by these sources. Also, Financial management in an local government includes strategic planning, implementation and control of various methods and techniques to ensure the efficient use of financial resources, the achievement of financial objectives and the preservation of the financial health of the organization.

Literature review

The concept of management has evolved significantly over the years, expanding beyond its traditional roles and functions. In its modern form, management encompasses a wide range of principles, approaches and responsibilities that extend far beyond the boundaries of a business organization. This expanded management concept reflects the dynamic and complex nature of today's globalized and interconnected world. Management is no longer confined to business schools or corporate boardrooms. It has become an interdisciplinary field that is supported by psychology, sociology, economics, ethics and even environmental science. Managers today need a comprehensive understanding of the various factors that influence decision-making and outcomes. Modern management emphasizes strategic thinking and planning. They are expected to set long-term goals, adapt to changing environments, and make informed decisions that align with the organization's mission and vision. Strategic management is about staying competitive and sustainable in an ever-evolving world. Beyond shareholders, modern management recognizes the importance of multiple stakeholders, including employees, customers, suppliers, communities and the environment. Balancing the interests and needs of these different groups is essential for long-term success.

Organizations use risk management methods to identify, assess and mitigate financial risks that may affect their operations. Risk assessment tools, scenario analysis and risk matrices help quantify and manage risks related to market volatility, credit exposure, interest rates and other variables. Organizations evaluate various financing methods to raise capital, including issuing debt (eg loans, bonds) and equity (eg equity offerings, equity entrepreneur). The choice of financing method depends on factors such as the cost of capital, risk tolerance and capital structure objectives. (World Economic Forum 2021). Embracing FinTech methods involves the use of technological solutions such as software financial, data analytics and blockchain for efficient financial transactions, reporting and risk management. (Sharpe, W. F. (1964). Effective financial management combines these methods and techniques to create a strategy comprehensive that aligns with an organization's goals and ensures the well-being and its financial stability. It requires continuous monitoring, analysis and adaptation to successfully navigated the complexities of the financial landscape. Public organizations are increasingly adopting FinTech solutions for transactions efficient financial, payment processing, data analytics and fraud detection. These technologies improve financial management and transparency. Poister, T. H. (2019).

Methodology and data

The methodology examines the evolution of statutory auditing regulation, comparing the regulatory structures, revealing increasing similarity for standardized practices, and relies on a qualitative analysis of publicly available documents and legislation. Analyzing the procedures based on the law a general review of finances instead of a statutory audit for public institutions increases an administrative burden. Still, its practical implications are significant, as regulation is crucial for financial market functioning and public information.

In the end, this research study reveals interests and perspectives that could benefit the international audience in reducing the accounting and auditing obligations procedures, examining the due process of accounting standard-setting, and focusing on stakeholder and jurisdictional influence.

Structural reforms, such as the economic market and financial legislation are essential **f**or sustainable economic growth in Albania. Implementing these reforms leads to increased awareness and efficiency in financial resource use. Regarding the financial management of public resources, it is often recommended by international organizations, that Albania follows the European Union's principles to develop continuous training programs for public accounting and auditors.

The analysis is based on the general report from the Ministry of Finance and Economy in 2022, where data on the financial management of public organizations in Albania will be collected and analyzed in the general reports for the „Report on the Functioning of the Internal Public Financial Control System in Albania. General Government Units for 2021“ (Source: https://financa.gov.al/wp-content/uploads/2023/08/Raporti-KBFP-2021-Final.pdf). How will the information be collected from the „MEF Strategy for the Management of Public Finances Albania 2019-2022“ (Source: https://portavendore.al/wp-content/uploads/2019/12/Strategjia-e-MFP-2019-2022.pdf), for the challenges, strategies and effectiveness they have given in practice. These elements will provide us with the necessary information on the financial management of public organizations.

Research results and comments

The methodology describes the approach for analyzing the financial management of local government. The analysis will mainly focus on the „Report on the Operation of the Internal Public Financial Control System in the General Government Units for 2021“ published by the Ministry of Finance and also address „The Strategy for the Management of Public Finances in Albania 2019-2022“, and to see after the analysis, the applied strategies and their effectiveness. The lack of professional capacities and incomplete audit coverage of local self-government units declares them as high-risk units, affecting their performance and administration.

The Internal Audit Committee is an independent body that monitors and provides advice to the holders of public entities regarding internal control systems. However, the creation and operation of audit committees was implemented only in 6 ministries and 1 independent institution during 2021. The creation of audit committees is at the discretion of the incumbents and their absence is a consequence of the lack of awareness of their importance. Also, their effectiveness is affected by the lack of auditing expertise. The audit committees' reports for 2021 identified several challenges and recommendations for improvement. These challenges include planning audits, quality of audit recommendations, quality assurance program, remuneration and remuneration system for auditors, planning information technology audits and performance audits. The Internal Audit Committees conclude that, in general, the audit activity is in accordance with the regulation, but requires improvements in some specific areas for which relevant recommendations have been given. Holders of public entities should support internal audit structures more. The audit activity is based on the Strategic Plan 2021-2023 and the Annual Audit Plan of each internal audit unit in the public sector. The planning is done on the basis of assessments of risk factors and trends identified by the internal audit units (IAB). The consolidated plan is a tool used by the Internal Audit Harmonization Directorate (DH/AB) to monitor the planning of the audit activity of each unit and address the problems that appear in the planning. For 2021, 1111 audits were planned, but only 1061 of them were carried out, represented by the following data.

Table 1. Completed audit engagements for 2021

Type of Auditing	Number of Audits
Total of Audits	1061
Security Services	384
Counseling Services	19
Compliance audits	58
Performance audits	5
Financial audits	525
Information technology audits	13
Combined audits	57

Overall, international bodies are cautious and encourage Albania to continue with financial sector and budget reform, address arrears challenges and improve public investment and PPP management, while addressing fiscal risks in a more sustainable manner. efficient. Budget transparency and public involvement in budget processes are also essential for improving the financial situation in the country. Financial analysis methods help local governments assess financial health and performance. Techniques such as ratio analysis, trend analysis, and financial statement analysis provide insights into profitability, liquidity, solvency, and efficiency. These analyzes guide decision making and identify areas that require attention or improvement. Public organizations generate income through taxes, fees, fines and other sources. Revenue management involves optimizing revenue collection, preventing fraud and ensuring that revenue sources are used to support public services effectively.

Compliance with ethical and legal standards is paramount in the management of public finances. Public organizations must comply with laws and regulations governing financial operations and reporting. This includes ensuring that public funds are used ethically and transparently.

Financial management in public organizations is fraught with unique challenges stemming from the complex nature of government operations, the need for transparency and accountability, and the often limited financial resources available. These challenges, if not managed properly, can significantly hinder public organizations in pursuing their objectives and effectively providing essential services.

This control included four main categories:

1. Compliance with applicable laws and regulations: Ensuring that the public entity meets all legal and regulatory requirements.

2. Reliability of financial and managerial reporting: Ensuring that financial reporting is accurate and reliable and that management is efficient.

3. Effectiveness and efficiency of operations: Ensuring that operations are efficient and effective in achieving the organization's goals.

4. Asset Protection: Ensuring that all assets of the organization are protected and carefully managed.

Institutional relations in the public sector have a significant impact on financial management and control of public resources. An integral approach to the development of Financial Management and Control of the public sector should consider the fact that public units are interconnected and that this interconnection has a profound impact on the development of the MFK at the general level. In the public sector, there are examples of interconnected units, including the ministry and its subordinate agencies, which are created to manage and handle certain activities related to the area of competence of the respective ministry. In this context, we can also mention the municipalities and their subordinate units, which influence the implementation of policies and financial planning in various fields such as health, education, culture, and others.

Conclusion

The analysis of the report of the Ministry of Finance (MFE) on the management of public finances in Albania shows some key conclusions:

Reforms in the MFE: The report mentions that the MFE underwent restructuring in 2018 and is currently updating public finance planning based on the Mid-Term Review of the MFE Strategy 2018. This shows an effort by the government to improve financial management and budget planning.

Improvements in fiscal compliance: The report shows improvements in fiscal compliance, including a section on fiscal risks and a list of Public-Private Partnerships (PPPs) in budget proposals. This is a positive step to reduce fiscal risks and ensure that budgets are handled in accordance with the law.

Budget transparency: The report assesses the increase in budget transparency with the timely publication of key budget documents, including the year's budget and the list of public investments. This step is key to increase the credibility and accountability of the government to the citizens. However, he identified challenges in the transparency of financial management of public organizations, especially local governments.

Management of public investments and PPPs: The analysis shows the need for a clearer and more transparent assessment of public investment projects and PPPs. This is a key aspect to improve the efficient use of public resources and reduce fiscal risks arising from PPPs.

Liquidity forecasting and resource management: Improving liquidity forecasting and government resource management is an important challenge. This aspect is key to ensure that the government has sufficient revenue and controls its expenditure efficiently.

In conclusion, the report shows the positive efforts of the Albanian government to improve financial and budget management. However, there are major challenges to address, including increasing arrears and managing public investments. To ensure sustainable economic development and financial stability, it is important that the government continues to work on improving these areas of financial management.

Based on the analysis of the report of the Ministry of Finance and Economy (MFE) on the management of public finances in Albania, we can propose some important recommendations for improvement:

Development of the MFP medium-term strategy: It is important for the government to draft a medium-term strategy of the Minister of Finance and Economy (MFP) that includes specific goals and measures for improving the management of public finances. This strategy should be updated and regularly reviewed to ensure compatibility with the country's development goals.

Strengthening the management of public investments: The government should develop a common and transparent process for the evaluation and selection of public investment projects and public-private partnerships (PPP). This process should ensure that projects are supported by robust economic and financial analysis and that risks are limited.

Improving liquidity forecasting and resource management: It is necessary to improve liquidity forecasting and government resource management. The government should have a better definition of possible sources of income and expenditure and build strategies for managing liquidity more efficiently.

Control of arrears: It is important to strengthen the prevention and control of government arrears. This process should include the reimbursement of missing obligations, including VAT and payments to the central and local governments for the construction of infrastructure.

Improving budget transparency: Improving budget transparency should continue to be a key objective for the government. Budget data, including the year's budget, public investments and PPPs, should be published in an open and accessible manner for the public and experts.

Increasing the role of the Ministry of Finance and Economy: The government must consolidate decision-making processes and strengthen the Ministry of Finance and Economy to efficiently manage public investments and PPPs. This step can help reduce fiscal risks and improve the coordination of investment projects.

Reduction of fiscal risks from PPPs: The government should revise and amend the legislation of PPPs to improve supervision and control of the fiscal cost of these projects. It is important to ensure that PPPs are compatible with the country's development objectives and that fiscal risks are monitored and mitigated.

In-depth analysis of large contingent liabilities: The government should conduct a detailed analysis of large contingent liabilities, including those of state-owned utility companies and local governments. This step can help identify and manage potential financial risks.

These recommendations are undertaken to address challenges and improve financial management in Albania. The government's efforts to implement these recommendations will help improve the country's financial stability and economic development.

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TIME MANAGEMENT OF PROJECTS BY APPLYING THE FIDIC CONDITIONS OF CONTRACT

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Abstract

In the implementation of large investment projects, it is a common practice to exceed the set budget and/or extend the time for completion compared to a predetermined duration. As a general rule, the contractual relationship between the parties implies effective project time management. One of the best examples and templates for the above is the FIDIC conditions of contract, containing detailed and time-tested methods for efficient project time management. The present study briefly reviews the main methods in this regard.

Keywords: Time management, FIDIC conditions of contract

JEL: M21, K12, L74

Introduction

The FIDIC conditions of contract regulate in a very high degree of detail the relationships between the individual parties in the process of investment design and construction. One of the main aspects addressed by these conditions is time management. In practice, there are often cases, especially in the case of large-scale infrastructure projects, that circumstances arise that prevent the implementation of projects within a predetermined period. It is the conditions of FIDIC that indicate the actions of individual parties in similar cases, and the application of these conditions implies achieving a balance in relationships, incl. achieving the ultimate goals of each of the parties.

1. FIDIC's Conditions of Contract – essence and types

FIDIC is an international union of consulting engineers (sometimes referred to as a „federation"). Founded in 1913, FIDIC is charged with promoting and implementing the consulting engineering industry's strategic goals on behalf of its Member Associations and to disseminate information and resources of interest to its members. Today, FIDIC membership covers over 100 countries of the world[2].

The main objectives of the federation in brief are:

- ✓ To be an internationally recognized organization in the field of best practices related to engineering consulting;

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[2] https://fidic.org/about-us

- ✓ To assist and support the international development of viable consulting engineering services;
- ✓ To promote and strengthen the leading position of contractual conditions of FIDIC, etc.

Currently, the most common terms of contract worldwide (known as the „Rainbow of FIDIC“ due to the use in the names of different colors) are those that are the first edition of FIDIC, 1999 (with the use of the terms of contract from 2017). They include the following standard forms of contract (the list is not exhaustive):

Colour	Form	Scope
Red Book	Construction Contract	Building and Engineering Works Designed by the Employer
Yellow Book	Conditions of Contract for Plant & Design-Build	For Electrical & Mech. Plant & For Building & Engineering Works Designed by the Contractor
Silver Book	Conditions of Contract for EPC Turnkey Projects	EPC/Turnkey Projects

Source: The FIDIC official website

There are also other contractual conditions (Green Book, Golden Book, etc.), but they are not so widely applied in terms of the number of concluded contracts. However, the latter should not be perceived in such a way that these contractual conditions do not contain corresponding advantages, on the contrary.

The contractual conditions contain two main parts – General and Particular conditions. The first are those issued by FIDIC, and the second are drawn up by the Contracting Authority (the interested parties) in order to adapt and supplement the general conditions in relation to the specific requirements, the current legislation and the rules of the relevant country (countries) in which they are performed international projects, incl. parts of the General Terms and Conditions are canceled (deleted) in cases where they are inapplicable or contrary to the laws of the country.

The subject of the present development are the contractual conditions – Yellow and Red Books, first edition 1999, due to the author's restriction of access to the other stated conditions.

The parties to the Conditions of contract of FIDIC (Yellow and Red Books), as well as the settlement of their functions (conditionally, since their roles are outlined in practically all clauses of the Contract Terms), are:

- ➢ Employer – clause 2;
- ➢ Engineer – clause 3;
- ➢ Contractor – clause 4.

Other institutions and persons defined in the Contract Terms (such as the Dispute Resolution Commission) are specified and cited in the Contract Terms and Conditions, but they have no specific relation to the subject of this study, which is why they are not the subject of consideration.

2. Project cycle and importance of project time management during its individual stages

As a general rule, valid for any significant project (especially international), it contains a life (project) cycle consisting of several main elements in its composition. According to the generally valid rules derived in theory and applicable in practice, every project in its life cycle contains main phases and the processes related to them. Project management institute identifies the following project management process groups/phases (PMI, 2008):

- Initiation – initial shaping of the general scope and content of the planned project;
- Planning – detailing the scope of the project and the relevant work packages/activities, determining the final goals and results, performing financial and economic analyzes proving the appropriateness of the (in general) investment intention and its viability; technical, environmental, legal and ecological aspects and their impact on the scope of the project works and the relevant specific actions;
- Implementation – the actual part of the implementation of the project in accordance with its previously defined scope and in accordance with the set final goals and the methods for their achievement;
- Control and monitoring – carried out practically throughout the project cycle and guaranteeing that the set tasks will be achieved through the correct implementation of the specified activities in its various aspects (technical, financial, managerial, etc.), incl. in accordance with the set quality requirements;
- Completion – reporting of the results and acceptance by the contracting authority/client of the works carried out within the framework of the project.

Time management is one of the main areas of knowledge in project management (including international ones), regarding the effective and efficient achievement of the set final goals. In addition, time management has a decisive influence on quality project management, resp. their implementation according to predetermined indicators.

The PMBoK, in its role as one of the main international project management standards, is used as a baseline for defining the nature and importance of time management as it relates to projects, regardless of their nature. It clearly states the individual areas of project management knowledge. Among the main ones are (the list is not exhaustive):

- ✓ Project integration management;
- ✓ Project scope management;
- ✓ Time management in the project;
- ✓ Project cost management etc.

The importance of time management in the project cycle is paramount for several main reasons:

- The duration of the project as a general rule is set in the initial phases of the cycle (approximately at the „initiation" phase and with a much greater degree of accuracy at the „planning" phase) and is subject to monitoring and control until the completion and reporting stage of the project. In this regard, the duration can be defined as one of the most important and essential indicators in the implementation of international projects;
- By its very nature, duration refers to planned activities. In view of the fact that the completion of some activities (for example, the design of investment projects in the case of an infrastructure project) is a condition for the initiation of subsequent activities (in the case of construction), the timely completion and, to a lesser extent, the control over this has significant influence on the overall implementation of the project and reaching the pre-set requirements from the contracting authority/client;
- It should also be noted that it is a common practice that in the case of a delay (i.e. a deviation from the pre-determined time schedule) of the activities, this affects the quality of the implementation of the project works related to the technological requirements and sequence of execution of the various construction (and accompanying) processes;
- With no less importance, it is necessary to emphasize that within the main activities themselves, logistics related to coordination and timely execution, as well as following a certain technological sequence, are often necessary – in view of the fact that a significant part of the international projects contain an investment (construction) component, during their implementation coordination works are carried out with various suppliers (of machinery, facilities, equipment, materials, etc.). In cases where this type of coordination is not at a sufficient level, it manifests various negative effects. Such are, for example, downtime of construction machinery (the provision of which is associated with a significant financial commitment); delivery, but not use of materials that technologically require their timely use (for example, concrete that loses its properties after a certain period of time; asphalt that requires to be laid at certain temperature characteristics, etc.);
- In view of the fact that international projects are carried out in many parts of the world, in some of them the climatic conditions have a direct impact on the overall organization of project works. For example, in countries with a sub-equatorial or tropical climate, during the summer months, the temperature conditions are such that they often do not allow the full deployment of the performance. Another typical example is in cases where project activities take place in parts of the world with a sub-polar or polar climate. In view of the above, proper time management in the project is often of crucial importance for its successful implementation and with the necessary quality, incl. in the predetermined terms;
- A specific element of time management is related to the financial security of the activities. At the „planning" stage, one of the components subject to planning is the financial plan of the project. As a general rule, it is related to and reflects

incoming cash flows arising from borrowed funds (raised capital) from credit institutions. The financial plan usually contains a schedule of tranches, resp. schedule (incl. start date) of utilization of the funds, from which derives another part of the financial plan, namely the recovery of the attracted capital, incl. the interest on it. In the event that the time in the project is not effectively managed and deviations from the originally planned are found, then for the interested parties, in general, additional costs arise, and in some isolated cases (with a significant deviation from the schedule) – impossibility to secure the necessary financial resources or its increase in cost and, more generally, creating conditions for potentially jeopardizing the normal implementation of the project, related to its financial aspects;

- Another element of the importance of time management in the project can be highlighted in the fact that sometimes the implementation of projects is related to the holding of events of an international scale (for example, trade, sports, etc.). Contracts with contractors often contain penalties for delay, because in view of the interests of the contracting authority (and other interested parties) related to the timely implementation of the project, benefiting from the results of its implementation is an essential element of the general external environment.

3. Time management by applying FIDIC conditions of contract

Below are the main factors arising from the content of the FIDIC Conditions of Contract, Yellow Book, First Edition 1999 (much of what is stated below also applies to the 1999 edition Red Book). They can be grouped into two main directions from the Contractor's point of view in the sense of item 1.1.2.3 of sub-clause 1.1 of the General Conditions of the Contract (GCC):

- internal to him;
- external to him.

The subject of the present study is only the internal factors, as external factors are also partially affected, and more specifically the actions of the Engineer.

With regard to the first group, the following main aspects can be identified, again divided into two groups, namely before the date of submission of the offer and after the commencement date in terms of sub-clause 8.1 GCC. In relation to the first group, to lead to effective time management, a major factor is a high level of familiarity with site data within the meaning of sub-clause 4.10. An influence in this case is exerted by a factor external to the Contractor, namely the ability of the Contracting Authority to provide sufficient volume, quality and correctness of similar data. In this regard, both the commercial practices of privately funded projects and those implemented through a public resource imply the possibility for interested parties to request and receive additional data and clarifications regarding these data.

For example, Art. 33, para. 1 of the Bulgarian law on public procurement allows for the possibility that individuals may request in writing from the contracting authority clarifications on conditions contained in the documentation for the public procurement. Participants should take advantage of this opportunity, incl. the potential future contractor to the extent that sub-clause 4.11 indicates that the site particulars are sufficient to form the contract sum proposed by him. The terms of the contract do not imply a change in the contract price and/or time for completion in terms of clause 20 in so far as sub-clause 4.10 directs that based on the site data he has satisfied himself as to all material matters relating to any aspects relating to its form, nature, conditions, etc.

In summary, to effectively manage the time before the date of submission of the offer, the Contractor is supposed to make sufficient efforts at the stage of preparation of his offer to minimize the occurrence or negative manifestation of future circumstances after the date of commencement having resulting in a delay in completion time.

The set of measures aimed at managing time after the start date is much richer. Main among them are:

- measures related to securing the right of access to the site (sub-clause 2.1) – the Contractor should make sure that, within the framework of his competences and contractual rights (and obligations), he has secured all his documents (in the sense of item 1.1 .6.1 of sub-clause 2.1) of the Employer. Otherwise, he loses the right to claim an extension of time for completion. It is characteristic of ensuring the right of access to the site that this is one of the many obligations attributed to the Contracting Authority. At the same time, the lack of access prevents the Contractor from effectively implementing its Program (within the meaning of sub-clause 8.3), including its part concerning investment design. As for the latter, timely initiation of preparatory activities (geodesic surveys and measurements; acquisition of additional data regarding geological and hydrogeological characteristics of the site, etc.) protects the Contractor to a certain extent from future delays and/or poor construction performance.

It is no coincidence that the notes to the preparation of tender documents as part of the FIDIC conditions for this provision of the contract state that it may be of particular importance for the contractor to have prior access to the site in connection with carrying out preliminary surveys.

It should be pointed out that FIDIC contract conditions do not define the definition of „access to the site and possession“. However, they have different aspects – both documentary and physical. Accordingly, the absence of any of these elements will have a different impact on time for completion, requiring the Contractor to ensure that all possible aspects of site access are in place.

As a next measure, bearing in mind the chronology of contract execution, the timely development of the investment project in the sense of clause 5 should be identified. It is related to the previously identified measures. Their actual and timely implementation is a prerequisite (following the principle that the completion of a given, even an intermediate product, is a condition for creating the next one insofar as it benefits from the results of previous products) for the timely implementation of the main construction.

Another aspect binding the design and time management procedure is the quality of the project itself. As far as this is entirely the responsibility of the Contractor, in his interest, in addition to its timely production, but the same should also be of the required quality in terms of scope and content, incl. in relation to the requirements of the contracting authority in the sense of item 1.1.1.5 of sub-clause 1.1. This would protect him from the need for future amendments, which is associated both with additional delay, but also with the expenditure of a relevant financial resource (for design services; for ordering materials that are not really needed due to errors in the project; for already completed construction works (eg excavation) that were not necessary, etc.).

Last but not least, the timely development of the project in cases where, at the time of the start date, the requirements for the technological equipment, the materials for investment in the construction have not been specified (clause 5), is a prerequisite for the timely initiation of the procedure for their approval. The latter is particularly applicable to equipment requiring a long technological period for its production (and delivery to the site).

- again following the technological sequence in the implementation of the contract, as the next identified measure for effective time management, the timely initiation and implementation of the procedure for offering for approval of the equipment and materials by the Engineer, incl. with all required accompanying documents (declarations, certificates, etc.);

- the provision of resources (beyond technological equipment and materials) adequate to the needs and technological progress in the implementation of the actual construction is also essential for effective time management. In this case, it refers to the provision of both the necessary equipment and mechanization, as well as human resources. Specific to the latter is the engagement of a Contractor's representative within the meaning of sub-clause 4.3 possessing both the necessary theoretical knowledge and practical experience. This person is highly capable (assuming full commitment to managing the performance of the contract) to identify, at the earliest possible stage, potential risks/threats that will impact on compliance with the completion time;

- another aspect concerning the provision of resources is the availability of sufficient financial resources to ensure rhythmicity in the supply of materials (although one of the purposes of the advance payment in the sense of sub-clause 14.2 is such), the payment of remuneration and payments to subcontractors within the meaning of sub-clause 4.4. An effective method of doing this is the proper preparation of documents in accordance with sub-clause 14.3, namely reports and accompanying documents. This would ensure the rhythm of payments, and hence the meeting of all currently arising expenses. In case of delay on the part of the Contracting Authority to make payments, the contractual conditions of FIDIC specify both clear terms (sub-clause 14.7) and options for compensating the Contractor in case of delay (sub-clause 14.8). As a final option, which is generally beyond the interest of the Contractor, the contract allows its termination by the latter (sub-clause 16.2, letters (b) and (c));

- as a horizontal aspect regarding time management arising from this type of contractual conditions is the clear and detailed settlement of the procedures related to the Contractor's claims (clause 20), especially regarding events and circumstances affecting the time for completion. Such an advantage, however, also hides some features and conditions, failure to comply with which deprives the Contractor of the possibility, even if he proves the existence of circumstances that influence the implementation of the Program's time frame, to be deprived of the possibility of extending the completion time. In particular, cut-off periods are available, the occurrence of which, in the absence of action by the Contractor, renders it impossible for the Engineer, by decision under sub-clause 3.5, to extend the time for completion.

However, following the principles of fairness and good faith, the contractual conditions suggest (last paragraph of sub-clause 20.1) that such an omission should be evaluated as a degree of influence against the Contractor's objective assessment of the event in the process of investigating the event or the circumstance that led to until a claim for extension of time for completion. Despite this possibility, it is entirely in the interest of the Contractor to follow the contractual clauses regarding the terms of notification to the parties of the occurrence of such circumstances leading to disruption of the program and overall delay.

Insofar as in real construction it is not always objectively possible to determine the time/moment at which such a circumstance arises, especially knowing that it affects the completion time, the flexible perception of the actions or inactions of the Engineer, laid down in the last paragraph of sub- clause 20.1 is precisely the instrument arising from the terms of the FIDIC, protecting to some extent the Contractor from an excessive limitation of his possibilities to extend the time for completion. It is not in the interest of any of the parties for the Contractor to be unreasonably „pressured“ when applying the terms of the contract. Such conduct (by the Engineer or by the Employer under sub-clause 3.1 allowing the latter to grant specific approval of the Engineer's actions and in particular decisions to extend the time for completion) could have the ultimate effect of forcing the Contractor to terminate the contract, for to limit significant losses (in the form of late payment penalties under sub-clause 8.7). It is for this reason that the certain flexibility in the relationship between the parties ultimately has a favorable impact on the final results, incl. the timely performance of contractual obligations;

- a special place should be allocated (in view of the subject matter and complexity of the contracts and their scope, namely in the general case large-scale and long-term construction) for events characterized as unforeseeable physical conditions (sub-clause 4.12). When they occur, the Contractor has the obligation to notify the Engineer „as soon as possible“. Formulated in this way, the notification period implies a certain flexibility, which in turn relatively exempts the Contractor from the 28-day notification period strictly defined by sub-clause 20.1. At the same time, the contract in this part refers precisely to the general clause 20 for the extension of the completion time. It should be noted the practical difficulties faced by the Contractor (and the Engineer) in assessing the extent to which such physical conditions were 1) unforeseeable and 2) disruptive to his programme. Last but not least, it is necessary to consider the fact that, given the technological sequence of a number of construction operations and the interdependence between them, the occurrence of such conditions could be decisive in relation to the completion time.

Strict and complete compliance with all actions indicated by sub-clause 4.12 of the Contractor are entirely in his interest. This circle also includes the good faith behavior of the Contractor to timely notify the Engineer, who will make relevant inspections and determine how unpredictable such conditions are, incl. their presence is grounds for extending the completion time.

There are also a number of other internal factors arising from FIDIC's contractual conditions for effective time management and the following can be identified:

- quality of construction, control over which is carried out by the Engineer given his specific functions of acceptance of the works. Quality performance implies successful completion tests (sub-clause 9.1) prior to the issuence of a Taking-over Certificate (sub-clause 10.1) or remedy of defects during the relevant period (clause 11);

- constant control and monitoring of the schedule as part of the Contractor's program (sub-clause 8.3);

- implementation of effective cooperation with the other parties in the process in accordance with the provision of sub-clause 4.6;

- maintenance of insurances pursuant to clause 18, etc.

One of the most essential elements of the FIDIC Contract Terms relating to time management relates to the provision of sub-clause 8.3. They are in several main directions:

1) The content of the program – it governs the order in which the Contractor intends to perform the Site, including the expected time allocation of each stage of the project, the Contractor's Documents, delivery, production, inspection, delivery to the Site, construction, installation, testing, commissioning and trial exploitation. In terms of content, this practically represents an implementation schedule, from which, last but not least, the critical path for project implementation can be deduced. The program is a basic document presenting the sequence and interdependence and interdependence between the individual main activities. It enables the Contractor to correctly predict, and the Engineer to control, the process of managing the resources involved in the implementation of the project (human, mechanization, suppliers, etc.). Last but not least, the program provides an opportunity to register potential risks related to a delay in implementation;

2) Next, the Contractor's obligation to submit a revised program when the previous program ceases to correspond to the actual progress or the Contractor's obligations. The revised programme, together with the catch-up measures described in the reports under sub-clause 4.21, are extremely appropriate time management tools as they represent to the greatest extent the current status of project implementation and enable control by side of the Engineer. It is equally important to note that as a result of revising a program, the opportunity arises to optimize the management of other aspects of the project (eg risks, suppliers, resources). Evidence for this statement is indicated in the sub-clause: the staff of the Employer will be able to rely on the program when planning their activities. In this connection is also the opportunity referred to in the last paragraph of the

sub-clause given to the Engineer to give notice to the Contractor that the program is failing (to the extent specified) to adhere to the Contract or to be consistent with actual progress and disclosed intentions of the Contractor. In this case, the contract foresees the emergence of an obligation towards the latter to submit a revised work program. The contractual conditions, by introducing the functions of the Engineer, regulated in this case in sub-clause 8.6, provide mechanisms for time control, but already from a source external to the Contractor (namely the Engineer). Specifically, the introduction of a requirement to submit revised methods to accelerate the rate of progress.

Perhaps an even more powerful tool than this action is the sanction regime provided for continued delay. The same is materialized through sub-clause 8.7, referring to sub-clause 2.5 and allowing payment of compensation for delay to the Employer;

3) In addition to the time management options set forth above, the FIDIC contractual conditions in this sub-clause provide for additional ones related to the Contractor's obligations that are subject to control by the Engineer. More specifically, in this case, it is the Contractor's obligation to immediately notify the Engineer of specific possible future events or circumstances that may adversely affect the work, increase the Contract Price or delay the performance of the Site. It is also an essential tool for the Engineer's control of important aspects of the contract and in particular the time for completion (or the deadline).

Conclusion

FIDIC contractual conditions contain significant advantages in terms of effective time management insofar as they define in detail, comprehensively and at the same time balanced the actions of the parties in cases where the Contractor deviates from a predetermined deadline. There are a number of practical methods contained in these contractual conditions, in the application of which the ultimate goals for each party are achieved, incl. the ultimate goals of each of the participants in the investment process.

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E-LEARNING EVOLUTION TRENDS AND INNOVATIONS IN THE HIGHER EDUCATION

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Abstract

E-Learning Evolution: Trends and Innovations in the Higher Education is a topic that explores the impact of digitalization and new teaching methods used by most of the lecturers. This paper will explore the current changes in the higher education, what are the new teaching methods in universities across Europe, what are the expectations for future development in this area, and what is the impact of new technological innovations and digitalization on the education. Furthermore, a prognosis and several conclusions will be prepared based on the findings from the research. This paper presents a literature review of various previous publications from different reputable sources through analysis and synthesis of the information.

Keywords: e-learning, educational trends and innovations

JEL: D83, I23, I25, A23, A29

Introduction

E-learning, or electronic learning, is a new step in the evolution of teaching and learning processes in the 21st Century and is supported by the worldwide implementation of the Internet and the progress in digitalization. E-learning is also increasingly entering people's lives through technological innovations and the desire of learners for easier access to educational opportunities.

In this article we will summarize the main trends of this phenomenon from few previous researches, but we will not go into detail about each of them as this will be the major limitation of the topic. The study itself will be a prerequisite for further in-depth researches in this area. The main aim of the author is to give the readers an insight into the development of e-learning and its current trends. Besides the scope of this study, another limiting factor will be the period. In order to provide the most up-to-date information possible, the focus will be on the most recent studies in this area from the previous 10 years or less.

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Methods of research

The methods of research include analysis and synthesis of various publications on the topic. Furthermore, the main data comes from original papers of international researchers, who have published their articles in Scopus, Web of science and other scientific journals or articles. The used databases include statistics from reputable sources like Statista and Eurostat.

E-Learning History and Evolution

The concept of E-learning has a historical development for more than 30 years, which is also supported by the Internet revolution. According to findings from previous researchers (Bezovski, 2016) it has even older history of more than a century, which is connected to „mail-learning method through correspondence courses" from 1920s. According to Bezovski the „CD-based training" was also a major breakthrough in the e-learning techniques.

Other authors divide the e-learning evolution into different stages (Smyrnova-Trybulska, 2019):

- First distance learning stage (around 1970), when course contents were totally delivered by regular mail;
- Second stage (1970 -1980): Open Universities – they offer access to study materials to students, who are learning remotely or have limited access to the campus;
- Third stage (1980 – 1990): Video cassettes and TV;
- Fourth stage (1990 – 2000): Computers, multimedia, interactivity, e-Learning;
- Fifth stage: Online Learning Environment (ongoing) – it is the latest learning method that takes full advantage of new technologies and learning trends to reach the largest number of students.

This division into periods helps to better define the time horizon of the concept under study in relation to the main trends at the time for the implementation of training approaches. By tracing the evolution, the influence of changes in the attitudes of the population and the openness of higher education institutions to everyone, but also to new technological devices such as videotapes, computers, multimedia, can be taken into account.

Benefits and disadvantages of E-Learning

Nowadays, the modern e-learning offers numerous benefits for all interested parties. Among them we can highlight the following (Ahmed, 2022):

- Affordability – it does not demand significant financial efforts for the educational institution or the students;
- Accessibility – the need for Internet and smart devices is the only requirement in order to access the online material database and start the e-learning process as a student. Furthermore, teachers could use online evaluation tools;

- Flexibility – For many of the course participants, it is convenient that they can combine e-learning with their work and other commitments because they can browse the online platform at their convenience;
- Frequently Updated Content – the materials are often updated up to the current trends and the new changes in the selected subject;
- Self-Paced Learning – the most common is that each learner can decide at what pace to learn in the platform and does not need to take into account the progress of others;
- Strong Analytics – The lecturers and the students can use the analytical data on the respective platform to check the various metrics such as percentage of correct answers in the questions, pass rate through the lectures, study time, and others. It is used to improve the learning process and experience for the students;
- Format Variety – like live lectures, videos, quizzes, and interactive simulations or others. They depend on the lecturer, platform and the students' preferences;
- Interactivity – for example interactive elements like discussion forums, polls, and gamification, enhancing engagement and collaboration among learners. The young learners usually are more engaged to interactive content than the previous generations.

But alongside its benefits, the e-learning process has also some disadvantages (Tamm, 2023):

- Dependence of the technology and internet access – without internet and modern smart devices like computer, phone or tablet it is not possible to access the online platforms, which support the E-learning. Therefore, some countries are still behind the in the usage of digital tools due to low living standards and technological adoption;
- Limited interaction with the teacher – The teacher or the instructor is only visible on the screen and usually there is limited personal contact with each student, but rather group approach except in certain cases like individual lessons or specialized classes. The limited feedback from students is another problem, which is very common;
- Social isolation – since the person is studying alone and remotely, the social isolation is felt with the lack of communication with other students outside of the online session and the contact between them is partly restricted. This is not an issue with the traditional classroom learning method;
- Need for strong self-motivation and time management skills – this is valid for everyone, but especially for working people, who have to arrange their time in a way to combine work and online lessons;
- Lack of communicational skill development in online students – this disadvantage is with strong impact to the younger students, which are still developing their socializing skills;
- Limited ways to prevent cheating – the common practice is that the students have many ways to cheat during the online exams. For example, they can use another smart device to look for answers or to use someone else to pass the exam in their place. There are some ways to prevent it like automated ID verification and the

assistance from AI to detect dishonest test-takers, but also live video feed and screen monitoring software;
- Focus on theory rather than practice – it could lead to reality, where some students are underprepared for real-life working environment due to the focus on theoretical preparation.

Different categories of E-Learning

After we have pointed out the benefits and the disadvantages of the e-learning, it is time to move on to the different categories of e-learning (Pachauri and Upadhyay, 2024):
- Completely Online: It is done exclusively in virtual environment without face-to-face physical meetings with teachers or classmates;
- Blended learning: This approach combines online education with in-person instructions. The students may attend certain classes virtually while participating in others physically;
- Synchronous learning: Synchronous learning occurs when you participate in an online class led by a teacher in real-time. This means you may need to log in at a designated time to join the session;
- Asynchronous learning: This type of learning allows you to progress at your own speed. You may have online resources or materials stored on a device, enabling you to study them whenever it is suitable for you;
- Instructor-led group learning: This refers to attending an online class with other students and a teacher. The students may come from various locations around the globe, but they all receive instruction from the same lecturer;
- Self-study: Self-study involves learning independently by exploring websites, reading articles or watching tutorials. Although there are no teacher or classmates, there is still a significant opportunity for learning;
- Self-study with a subject matter expert: Similar to the previous one with the exception that there is a lecturer involved. You might frequently visit their website to gain insights and knowledge from their expertise or ask them directly;
- Web-based learning: This type of learning involves acquiring knowledge by searching for information online using various search engines or engaging with social media groups. It allows individuals to explore a wide range of topics and resources independently;
- Computer-based learning: Accessing study materials from the Internet or from storage devices such as CDs, DVDs, or USB drives allows you to review the content on a personal computer or laptop.
- Video/audio tape learning: This occurs when you acquire knowledge by observing or listening to multimedia content. You can discover these resources on platforms like YouTube or other video and audio sharing sites.

According to the category or preferred method of e-learning, each student can choose the most suitable for him. This makes it easier for the learner to access resources and gain new knowledge. In addition, there are various cases where the use of a particular category is recommended over others. For example, if the student is in a country with low Internet speed or poor coverage, then it is more appropriate to use audio or video materials on CDs or flash drives.

E-Learning Evolution Trends

The E-learning variations have developed in different directions as teaching methods that have their own distinctive characteristics and serve specific purposes. Here are the most popular ones (Smyrnova-Trybulska, 2019):

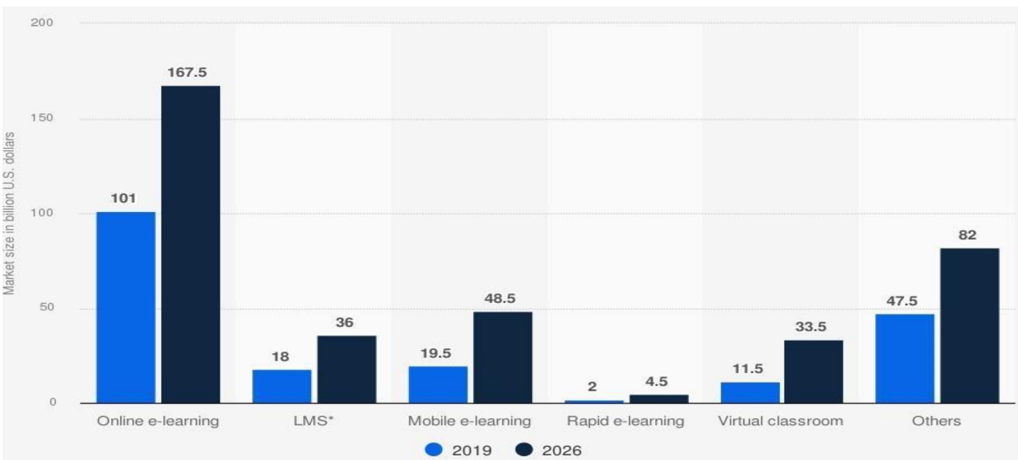
- Adaptive learning – it is done via the so called LMS (Learning management system), which is a software-based platform that supports the efficiency of the course and offers access to the study materials to the students. The adaptive learning uses such educational tools in order measure and evaluate the performance of the student;
- Blended learning – is an educational approach that combines online digital media with traditional classroom methods currently used in many universities. As stated above it blends the online and in presence teaching methods;
- Microlearning – refers to delivering bite sized learning content in short and focused bursts of information. The idea is that the learner can go through small portions of data in order to learn it better and for short amount of time. For example, microlearning is used for games, quizzes or infographics and others;
- Video and podcasts-based learning – it is very popular nowadays and as a major example can be pointed the YouTube videos and different video tutorials. With video presentation are achieved better audience focus and engagement by maintaining the relevant context of the training material and specific information for the viewers;
- Problem–based learning – such training develops the critical thinking of students, their problem-solving skills and helps them to coordinate better in a team. It is most often based on the use of real-life case studies;
- Project–based learning – similar to the problem-based learning, but the difference is the assignment to prepare a project with the goal to present different solutions to the problem at hand with the help of the lecturer;
- App-based learning, collaborative learning and digital storytelling – includes various software with digital content, where multimedia tools including graphics, animation, video and audio content are being implemented with the purpose of presenting information in more creative ways;
- Flipped classroom – the idea is the students to be more involved in the classes and one of the creators of the idea is Salman Khan (from Khan Academy). In the flipped classroom approach the lecturer is no longer the dominant figure and the students take the proactive approach with more discussions and debates;

- Gamification – involves applying game elements and principles to non-game contexts to drive engagement, promote learning and desired behaviors with problem- solving skills. The sole action of creating goals and achieving them stimulates the motivation of the learners. For example, Duolingo is one famous application that uses gamification in order to require new knowledge;
- Inquiry–based learning – similar to Microlearning, Blended learning and Project–based learning, where students are encouraged to solve problems using their research skills and with initial guidance from the teacher;
- Personalized learning – tailors the educational experience to each individual learner's needs, preferences, and goals. The lessons are tailor-made for each student according to the desired results. For example, personalized learning can be provided by personal mentors, trainers or influencers;
- Massive Open Online Courses (MOOCs) – are online courses designed for large scale participation and open access via the Internet. Famous examples include Coursera and Khan Academy.

Having summarized the main varieties of e-learning in the present, we should clarify that each of these methods is used according to the purpose of learning, the preferences of the instructor and the learners, as well as their available technical resources. Furthermore, it is important to remember that they can be used in combination between each other as long as separated.

Statistics

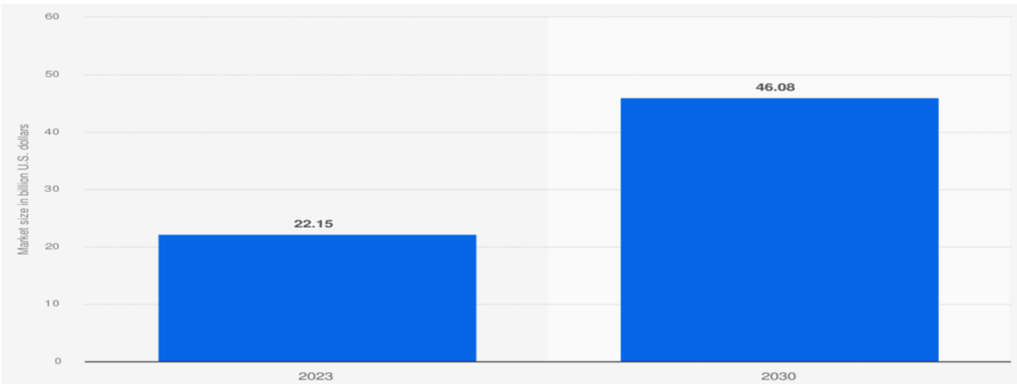
Currently the statistical information points out towards the rapid rise in the usage of e- learning technologies and the growth of its market. Now we will examine the market size based on data from a reputable source (Statista, 2019) in the following figure:



Source: Statista

Figure 1. Size of the global e-learning market in 2019 to 2026, by segment (in billion USD)

The figure above shows the prediction that all examined e-learning segments are expected to almost double in market value and consequently in size by year 2026. Since the prediction from is from 2020, it should be noted that at the moment the expectations are for even bigger growth to this market. For example, the number of the learners from Coursera has increased from 21 million in 2016 to 148 million in the first quarter of this year (eLearning Statistics, 2024). This is more than 700% growth for a period of 8 years and only supports the prediction that the market size and the number of users of such platforms is bound to increase even more in the future. This is suggested from the next figure with newest data from the same source (Statista, 2024) about global corporate e-learning industry:

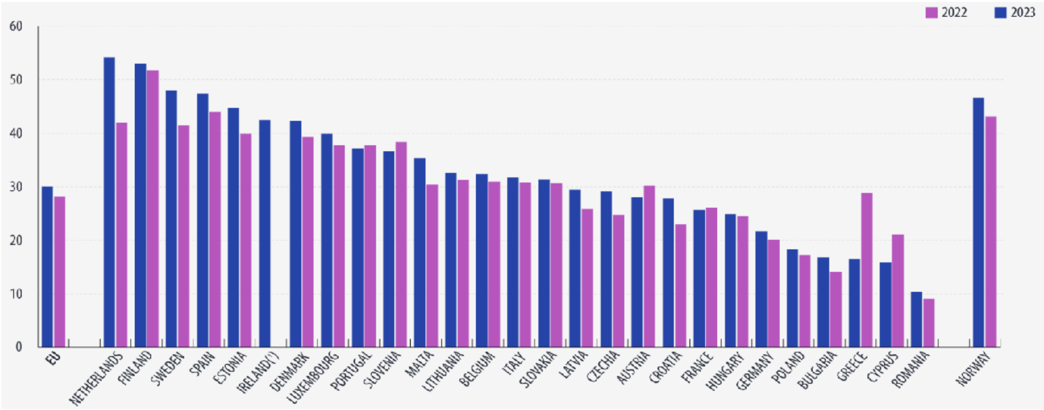


Source: Statista

Figure 2. Market size of the global corporate e-learning industry in 2023 with a forecast for 2030(in billion U.S. dollars)

This forecast supports the idea of the rise of global corporate e-learning industry from 22,15 billion dollars in 2023 to 48.08 billion USD in 2030. Therefore, we can assume that the potential for development and growth of the companies on this market is existing and they are developing at an increasing pace, supported by the processes of digitalization and e-learning. Online learning in the European Union is also on the rise and many countries have already implemented it within primary, secondary and higher education.

Regarding the situation in the EU, many people are already using e-learning and there is a clear trend towards its increasing application and integration into all country-members.



Source: Eurostat

Figure 3. People doing an online course or using online learning material, 2022 and 2023 (% of individuals, who used the Internet in the last 3 months)

According to the data in the figure above from the reputable source (Eurostat, 2024), between 2022 and 2023 there is 2% increase in the number (on average for the whole EU) of users between the age of 16 to 74, which have indicated that they had participated in an online course or utilized online learning resources in the last 3 months. This means that almost every third person in this age group have benefited from e-learning. The most successful countries in this regard are the Netherlands, Norway, Finland, Sweden, Spain and Estonia, where one in two have used online learning in the previous 3 months. By contrast, countries such as Romania, Cyprus, Bulgaria, Greece (with biggest decrease in percentage points within a year) and Poland should take measures to improve the computer literacy of their citizens, but also to implement stimulus in order to use online platforms, databases and information.

E-Learning Trends and Innovations in the Higher Education

Currently, the e-learning trends and innovations in the higher education are similar to the ones in the other education levels and can be summarized from the results of a recent research (Pribilov and Beno, 2024) as follows:

- Augmented Reality (AR) and Virtual Reality – the difference is that AR integrates computer-generated images and videos for mixed reality between the real and the virtual world, while VR offers completely virtual environment;
- Microlearning and Nano-learning – we have already mentioned them, but the difference is the nano-learning, where the fragments of information are even smaller;
- Artificial Intelligence (AI) and data analysis – the rise in the usage and capabilities of AI are promising about the data analysis of huge databases and it is amazing for how short period of time AI has become part of the daily life;

- Blockchain in E-learning – The development of the blockchain technology has included many purposes, but one of them is about integration in the e-learning platforms in order to enhance security and authenticity, to personalize learning experience, improve payment systems, and to improve assessment process;
- Gamification – with the help of AI gamification is nowadays not only an option, but a leading trend in the e-learning, which is also preferable for a lot of students;
- Others: such as Quantum computing and Metaverse are still under development, but the expectations are that they will bring major changes to the E-learning industry.

Conclusion

The evolution of e-learning in higher education is characterized by significant technological advancements and changing environment. The future of online education looks promising with innovations, which enhance learning experiences and accessibility for a diverse range of students. But e-learning faces challenges such as ensuring quality and engagement in online courses, addressing the digital divide and maintaining effective communication in virtual environments. However, e-learning offers also many benefits that guarantee its continuous usage globally, including in the higher education environment.

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EMPOWERING CONSUMERS: UNDERSTANDING AND EXERCISING RIGHTS

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Abstract

This research paper link the economic growth and Consumers rights. Empowering consumers through understanding and exercising their rights leads to increased consumer confidence, market efficiency, competition, improved business practices, reduced market failures, and a legal and regulatory framework. Empowered consumers feel more confident in their purchasing decisions, leading to higher spending and economic growth. They also hold companies accountable for unethical practices, promoting quality, transparency, and customer service. This balance between consumer rights and business operations fosters trust and long-term economic stability, involves being aware of their legal rights in the marketplace. Empowered consumers also demand higher-quality products, leading to more competition and new technologies, driving economic growth, creates a virtuous cycle where improved confidence, competition, and innovation feed into stronger economic performance.

Transparency in the marketplace ensures consumers have access to relevant information, building trust and encouraging innovation. This creates a virtuous cycle of improved confidence, competition, and innovation to protect themselves and ensure businesses operate fairly and transparently, thereby promoting a more transparent and fair business environment.

At the end the research paper highlights that economic growth is strong related with the consumer rights. Legal transparency is vital for consumer rights, enabling informed decision-making, accountability, trust, protection against abuse, and access to remedies. It promotes better business-consumer relationships, accountability, and access to consumer protection agencies.

Keywords: consumer, customer service, public rights, legal transparency, efficiency.

Introduction

In the social perspective, this paper will analyze the consumer's rights throw digital banking service, as a service that offers convenience, access, cost savings, efficiency, security, and flexibility. Service that eliminates the need to visit branches physically, expanding access to individuals, public and private entities with the aim of reducing the costs associated with traditional banking services. This system also simplifies processes such as account management, bill payment and fund transfers, reducing manual intervention enabling people to save, borrow, invest, and transact securely. Advances in encryption and authentication technologies have made digital transactions

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increasingly secure. This rapid innovation in the digital finance industry can have a positive environmental impact by reducing paper consumption and carbon emissions associated with transportation. In addition, e-banking enables family members to closely monitor the financial activities of their elderly relatives, increasing security and protection. So, e-banking raises security concerns, especially for less tech-savvy members, and educating them on online security measures is essential. E-banking may exacerbate the digital divide between younger and older generations, requiring help from older members but it is essential that this generation is also empowered to manage their finances independently. Managing these challenges is essential for everyone to benefit from digital financial services. Users can customize their experience, access additional services beyond traditional banking, and many e-banking platforms incorporate accessibility features to accommodate users with disabilities. It involves setting up an account, tracking income sources, categorizing income, setting up automatic transfers, budgeting, and planning, regularly monitoring, using additional features like bill pay and mobile check deposit, and prioritizing security.

Digital Fintech and digital services are closely related, focusing on improving and automating financial services like payments, lending, investing, and wealth management. Digital services, including online banking, mobile payment apps, investment platforms, and digital wallets, are delivered electronically, enhancing user experiences, and reaching a wider customer base. Regular monitoring helps identify discrepancies and opportunities for improvement, effectively manage income and achieve financial goals.

In conclusion, the results of this scientific study present that the identification of opportunities for improving digital services helps in the effective management of income and the achievement of financial goals, not only for individuals but also for the public and private sector, against the planned or expected results.

Literature review

The Albanian economy continues to remain mainly cash and this situation does not offer easy access to payment services. Making an infrastructure for communication and interoperability is the main challenge for the financial system, but it can also bring about changes in financial services. The year 2013 is a very important year in terms of the formation of the legal infrastructure of electronic payments. In this year, law 133/2013 dated 29.04.2013 „On the system of payments“. Its purpose was to create the appropriate spaces for the promotion of initiative private for creating the necessary infrastructures in the local market of card payments. Davis and Werther (2010, p. 164) noted that training prepares people to do reviews of their current work and development prepares the employee's knowledge, skills and attitude necessary“. In other words, training is an essential tool for an organization to satisfy the growing demand for contemporary knowledge and skills of employees. With increasing confidence in skills of employees through effective training, human resource managers help employees to perform their duties without any stress (Mangkunegara Waris, 2015). Some previous studies have empirically proved a positive and strong relationship between training and employee motivation (eg, Hughes et al., 2018; Jaworski et al., 2018; Sahinidis; Bouris, 2008).

Electronic government is considered a powerful instrument to achieve reforms in public management. Significantly, it is essential to the managerial culture in the public sector is supported, which shows efficiency and (Antonio Cordella Federico Iannacci, 2010).

Information Technology has become a solution for the implementation of information flows for make the process efficient and transparent. Of course, it is explained by governance models electronic development, stages, etc. The United Nations has recommended the development of „e-governance“ which aims to develop Information Technology. The effect of technology on public sector has come from various studies, research and projects (Antonio Cordella Federico Iannacci, 2010).

Finally, the effects of technology, the study of the public sector are related to political, social of electronic government projects. Technology affects the governance framework, which provides the relationship between organizations and technology. Thus, technology plays a vital role in the study and implementation of the public sector (Antonio Cordella Federico Iannacci, 2010).

How can Albania benefit by using new technologies in the fight against informality in the economy? According to the OECD study about the informal economy in Albania, it was emphasized that „the challenge of Albania is how to move to a more superior level of balance, without compromising vitality of the sector of entrepreneurs and without penalizing family consumers, eliminating unfair competition and without reducing the overall level of competition in economy“, as „a high level of fiscal evasion translates into a high level of competition dishonest and in distortions of operations related to the markets“.

Methodology and data

Direct methods are methods that attempt to directly detect economic agents operating in the informal economy, rather than indirect signs of informal activity. They are approaches at the micro level that include surveys and samples with voluntary participation or audit taxes and other methods of compliance.

The activity of the informal economy has become a part of existence all over the world. most of societies try to control it through punishment, economic growth and education. Informal economies are a complex, present and widespread phenomenon important in all types of economies (developing, transition, and developed). Not there is a consensus definition, causes, effects and methods of measuring the economy informal. All researchers agree on one point it has in common: it causes inefficiency in the functioning of the labour market and in the market of goods and services and encourages unfair competition between companies and countries. The informal economy reduces government income and distorts official indicators (growth, unemployment, distribution of income).

Research results and comments

An increase in the informal economy can lead to its reduction state income, which reduces the quality and quantity of goods and services provided public. As a result, this could lead to an increase in the tax rate for firms and individuals in the formal sector, often accompanied by deterioration of the quality of public goods, with resulting in an even stronger incentive to participate in the shadow economy. Quality of services public thus turns into an important causal variable for people's decision to work or not in the informal economy.

Advantages of electronic money – electronic money allows to buy goods and services give and take debts. The main advantage that electronic money offers is convenience. It eliminates the need to carry cash with you. This money is already in the form of a bank account or a credit card, waiting to be withdrawn or used by the consumer. Another convenience that this money offers is saving time, since it is no longer e necessary to go to the bank to withdraw money or transfer funds different.

Also, unlike paper money, electronic money is infallible because it does not it does not tear, does not get wet and does not deteriorate over time. With the creation of electronic money, a lot of banks have launched various products on the market, through which everyone has the opportunity to transfer funds from one bank account to another, buy various items online, and pay bills for water, electricity, telephone, etc. like paper money, electronic money gives you the opportunity to buy goods and services lend and receive. Convenience is the main advantage that money offers electronic.

Disadvantages of electronic money – Despite the advantages that electronic money offers, it also has some disadvantages. Some of these include fraud, technology failure and the uncertainty it causes people. One of the biggest concerns is that counterfeiters can create their own versions of money electronic, which would be indistinguishable from real money. These problems should gain public trust. Uncontrolled increase in the use of money electronic can jeopardize regulated money systems, allowing inefficient systems of flourish. In an uncontrolled electronic payment system, money laundering and evasion fiscal can spread rapidly. Therefore, it is important that the authorities monitor money circulation to detect these illegal activities. On the other hand, electronic money transactions are almost invisible in his eyes people, compared to cash transactions. Not having the opportunity to see these transactions as they happen, people tend to feel insecure for them.

Regarding the creation of values, it can be said that today there are creators of values quoted in scholarship. Individuals are those who form a society and as such are the ones with rights equal who should benefit from the redistribution of values. Value creators are those who they benefit at the same time as members of society and have the duty to pay and redistribute to be part of society. Beneficiaries are the final consumers of values and society itself and the individuals that make it up. It is also a generator of values consumer of values. So e.g. if you perform an economic activity and are a beneficiary of directly of a value that society offers (infrastructure, security, etc.) for this service should you pay So this is a chain cycle of distribution and value generation.

Conclusion

The Albanian government is working on a broad program of reforms, focused on macroeconomic and fiscal sustainability, stabilization of the financial sector, energy, social assistance and disability, as well as territorial decentralization. Albania is implementing important structural reforms that will support equitable economic growth, increase productivity and competitiveness, create more jobs, improve governance and public service delivery. Improved regional connectivity and access to regional and global markets, coupled with market and export diversification, would also aid faster economic growth.

Informality cannot be expected to disappear completely because it is a dependent phenomenon from a number of economic, social, cultural policies as long as it is an integral part of the natural development of a country. The informal economy is one of the biggest challenges with it faced by the Albanian economy, which is identified with unregistered businesses, evasion fiscal and informal employment. The fight against informality in Albania aims to strengthen efficiency and competitiveness in the economy, improving the business climate, ensuring that a balanced tax policy is being applied, ensuring a sustainable and long-term growth of the economy, fulfilling the requirements to become part of the European Union. The fight against tax evasion, corruption and improvement in tax collection from entities, it is seen as the philosophy of the Albanian government to achieve formalization. Integration of the economy informal in the formal sector has turned into an emergency element for the sustainability of economic development in Albania. Efforts at formalization must be supported by policy concrete for reducing the level of informality.

State budget revenues do not depend on direct taxes, but rely mainly on indirect taxes. In developed countries, direct taxes have a greater weight, while in developing countries pay direct taxes to buyers or consumers. All Albanian citizens regardless of their income they do not incur indirect taxes as they consume goods and services necessary for their survival which are usually subject to the decision that indirect taxes. Indirect taxes are easier to collect and harder to pay avoided by taxpayers. Indirect taxes increase budget revenues in cases where the state has economic growth which is accompanied by an increase in consumption. They are part of the payment for the purchase of harmful goods affecting their price increase. These taxes are more favourable for the consumer.

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EQUALITY AND SOCIAL INCLUSION: A COMPREHENSIVE ANALYSIS FOR PROMOTING SUSTAINABLE DEVELOPMENT AND EQUAL PARTICIPATION

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Abstract

The purpose of the scientific study is to provide a comprehensive panorama for increasing equality to benefit everyone as a community from a sustainable development and for equal participation and without discrimination for a greater social inclusion.

Equality and social inclusion are crucial indicators of sustainable development, as they reflect a society's ability to provide fair opportunities and resources to all individuals, regardless of their background or socioeconomic status. Equality reduces poverty, prevents social conflicts, and promotes economic growth. Social inclusion removes barriers that prevent marginalized groups from participating fully in society, allowing for the full utilization of human potential. Both are embedded in the Sustainable Development such as Goal, Gender Equality, Reduced Inequalities, and Peace, Justice, and Strong Institutions. Prioritizing equality and inclusion leads to lower poverty rates, better health outcomes, and higher education levels, ensuring economic growth doesn't leave anyone behind.

In addition to improving outcomes, participation and knowledge in time and place can also increase economic justice, reduce local public risk, foster citizen cooperation and acceptance, and provide information for rational decision-making. Sustainable development is viable and promising. When combined with the voices, assets and skills unique to a community, sustainable development can prove to be a vital instrument in managing resource scarcity and equity concerns.

Keywords: Sustainable development, Social inclusion, community, equality, economic growth

1. Introduction

The concept of social inclusion, referred to as social integration or social cohesion, represents a vision of „a society for all“, in which every individual, each with rights and responsibilities, has an active role to play. While definitions of Various concepts have been developed to describe social inclusion, all of which are based on promoting a normative vision of society in which individuals, groups or institutions are interconnected within a wider social system and their relationships are maintained and enhanced in a harmonious way (Esuna; 2015). The concept of social inclusion highlights the intertwined and multidimensional nature of chronic deprivation resulting from social

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exclusion, such as discrimination, which is closely linked to poverty and the problems that accompany it (such as lack of education, poor health and the level of low participation or involvement in the labor market). Also, social exclusion highlights the norms and belief systems that underlie exclusion. (Draft – Social Inclusion Policy Document 2023 – 2027). The involvement of citizens, interest groups and representatives of civil society organizations in decision-making regarding public issues is an approach that stems from the basic principles of democratic order and has been recommended by international institutions such as the European Commission, the Organization for Economic Cooperation and Development (OECD). Also, this approach is supported by international legal conventions and national legislation. At the same time, the participation of citizens in public affairs also comes as a result of the commitment of the Albanian government within the initiative of the Partnership for Open Government. (Mikova, Alite: 2016)

There was a tendency to: 1. Treat social inclusion as an extended version of „economic" inclusion; 2. identify exclusion by marginalizing certain individuals or groups based on their race, ethnicity or gender; and 3. focusing on individual well-being in analyzing and measuring social inclusion (Esuna; 2015). Just as diversity is considered a vital asset to achieving social equity, so is inclusion. While diversity and inclusion are critical assets to achieving equality, inclusion extends beyond the concept of diversity (Yeo J. & Jeon SH :2023). Development is unlikely to be sustainable unless it is inclusive. Pursuing the goal of leaving no one behind in a way that meets the needs of present generations without compromising the ability of future generations to participate in the processes that affect their lives. Social policies that promote universal rights-based practices based on rights, equal and meaningful participation, and norms of solidarity and reciprocity, paying due respect to diversity and the environment, are more likely to enable social inclusion (Esuna; 2015).

However, over time, it has become clear that, like social ills like poverty and inequality, exclusion has multiple causes and takes different forms related to age, disability and location, among others. It is therefore important to adopt a more comprehensive approach to inclusion. Furthermore, there has been a renewed interest in social inclusion, with a number of policies and programs implemented around the world that have emphasized the need to simultaneously promote productivity, poverty reduction and greater inclusion. In some countries, social programs are now evolving towards a framework of social inclusion, which includes: 1. access to basic services, especially in health and education, which requires the active participation of beneficiaries in the relevant programs; and 2. access to economic opportunities with a focus on inclusion in the labor market, with a primary aim to reduce poverty and vulnerability, especially among the most disadvantaged groups. (Esuna; 2015). The root causes of poverty are generally invisible in standard empirical data and therefore remain largely unexplored in mainstream poverty analysis and not included in poverty reduction strategies. Absence caused by social exclusion usually occurs simultaneously in several aspects; policies that improve only one of these aspects (such as improving access to education) do not relieve the impacts of other aspects. Individuals and groups participate in society in three interrelated areas of social inclusion: markets, spaces and services. These areas represent both obstacles, but also opportunities for social inclusion. Access to services is essential to improve the conditions under which individuals participate in society, and the opportunity to seek space for participation is essential for inclusion (Draft – Social Inclusion Policy Document 2023 – 2027).

2. Social inclusion and sustainable development through public policies

The reasons for citizens' involvement in decision-making can be different, starting from ideological reasons and ending with practical ones. From an ideological point of view, democracy is a system that relies on the consent of the citizens, for the assurance and preservation of which, the participation of the citizens in political decisions, which play a role and have great consequences in their lives, is necessary. Within the representative system of democracy, the Parliament, which consists of elected representatives, plays a central role in making decisions at the national public level. In order to maintain the sustainability of the system, the government must listen carefully to the demands of citizens for more participation, transparency and accountability, and public institutions must introduce new forms of citizen involvement in policy-making (Mikova, Alite: 2016). necessary to examine the social relations within which the economy and society are embedded. The implementation of inclusive social policies is the responsibility of all social actors, including governments, civil society, the private sector and society in general. It is vital to promote and encourage partnerships between different actors and sectors for the implementation of these policies. However, it is the role of the state to create mechanisms that would facilitate the involvement of all these important actors at the national and local level (Esuna; 2015). On the other hand, sustainable development is widely understood as a concept that is characterized by: the connection of closely between the goals of economic and social development policies and environmental protection; the qualification of environmental protection as an integral part of any development measure and vice versa; and the long-term perspective of both policy goals, which is the intergenerational responsibility of states. The concept of sustainable development in its entirety should be perceived as an anthropocentric and ecocentric nature (Ulrich; 2009). Inclusive social policy is one such mechanism that promotes sustainable development in which all human beings have the right to a decent living and are allowed to participate on equal terms in decision-making processes. At the same time, it is essential to recognize that processes of social inclusion are always locally specific and historically conditioned. Each country must formulate policies and strategies based on its specific circumstances, resource base, and cultural and institutional structure. The task is not so much how to expand social inclusion per se, but how to promote the kind of inclusion that favors the creation of a more equal society. (Esuna; 2015)

Some of the practical reasons for citizen involvement are:

Direct communication between decision makers and users of services or beneficiaries of public policies to better understand the needs of citizens or customers; Better public policies that are drawn up on the basis of multiple sources of information and different expertise; Wider acceptance of policies by the public; Increasing public trust in public institutions and the government; More transparency on public decision-making (Mikova, Alite: 2016).

For the successful engagement of citizens in policy-making, it is necessary for the public administration and its staff to have a positive attitude towards participation, as well as to have knowledge and apply important methodological principles for citizen participation. These principles serve as guidelines for public administration during participatory processes. The basic precautions for the successful engagement of citizens in decision-making can be summarized in the following ten points:

1. Convincing public administration officials that the engagement of citizens in decision-making on public issues is really useful.

2. Actively using all current legal tools to allow citizens to exercise their right to participate in public decision-making.

3. Ensuring that the participation process is easily understood by the public, including its objectives, the role of the persons involved, responsibilities, reasons, etc.

4. Sufficient time for the participatory process, such as sufficient and timely extension of the various stages and the entire participatory process, to enable satisfactory dialogue.

5. The objective of the process, e.g. ensuring all information available from the public administration (integrity, objectivity/impartiality, access to all types of information).

6. Allocation of sufficient resources (financial, human, technical and other) necessary to ensure the entire participatory process and make it more efficient.

7. Coordination of participatory processes at all levels and departments of public administration and NGOs in order to achieve maximum efficiency and prevent risks (of job cuts, continuous burden on public administration and citizens, and non- fruitful etc.)

8. Public administration accountability: being open, transparent, and justifying opinions and decisions regarding suggestions/comments received from public administration, citizens and NGOs during the participation process.

9. Monitoring and evaluation of the processes and results of policy-making with the participation of the public administration. The purpose of evaluation is to improve participation and adapt it to changing conditions.

10. The use of active citizens and the dynamics of civil society to promote civic education of the public and improve the quality of decision-making. (Mikova, Alite: 2016)

In the postmodern era, social equity in service delivery appears to be a primary concern. In this cultural environment, decision-making takes a certain degree of innovation, improvisation and risk. Certainly, considerations of social equality in part of public organizations would best occur in this type of cultural environment. One way to ascertain this type of culture in a public organization is to perform a culture diagnosis. The purpose here is not only to identify the particular culture that is present and its operative values but also the extent to which it is shared by members. The objective of the cultural diagnosis is to determine if there is a negative bureaucratic culture that hinders effective public service delivery and considerations of social equality. Also, a diversity audit can be administered to determine hidden perceptions or confirmed biases for certain groups of individuals (Rice:2003). There is an ongoing controversial discussion in international legal writings about the normative content and status of sustainable development. Some researchers suggest that the concept of sustainable development possesses normative qualities and has already acquired the status of a principle of customary international law, or at least will become such a principle. Sustainable development is therefore still very sensitive to different explanations. Its 'normative language' is vague to the extent that it cannot establish any discernible steering effect on the environmental behavior of states. For these reasons, much speaks in favor of the assumption that sustainable development remains below the threshold of normative quality, which is a prerequisite for sustainable development to attribute the quality of a 'legal' principle. Thus, it is a political ideal rather than a legal principle (Ulrich; 2009).

3. Conclusions

The concept of social inclusion highlights the intertwined and multidimensional nature of chronic deprivation resulting from social exclusion, such as discrimination, which is closely related to poverty and the problems that accompany it. The concept of social inclusion, referred to as social integration or social cohesion, represents a vision of „a society for all“, in which every individual, each with rights and responsibilities, has an active role to play. The involvement of citizens, interest groups and representatives of civil society organizations in decision-making regarding public issues is an approach that stems from the basic principles of democratic order and that has been recommended by international institutions. It is necessary to examine the social relations within which the economy and society are embedded. The implementation of inclusive social policies is the responsibility of all social actors, including governments, civil society, the private sector and society in general. It is vital to promote and encourage partnerships between different actors and sectors for the implementation of these policies. Inclusive social policy is one such mechanism that promotes sustainable development in which all human beings have the right to a decent life and are allowed to participate under equal conditions in decision-making processes. Sustainable development is not itself a norm, it cannot be more than a name for a set of norms. For the successful engagement of citizens in policy-making, it is necessary for the public administration and its staff to have a positive attitude towards participation, as well as to have knowledge and apply important methodological principles for citizen participation. These principles serve as guidelines for public administration during participatory processes.

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THE SPECIALIST DOCTOR'S BRAND IN INTERNATIONAL HEALTHCARE: ROLE OF DIGITALISATION AND CYBERSECURITY

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Abstract

The post-pandemic dynamic environment of international healthcare has set branding as a fundamental differentiator for specialist doctors. This paper explores the intricate relationship between branding, digitalisation, cybersecurity and healthcare in an international setting, highlighting the collective significance of these elements for the favourable perception of a specialist doctor's brand. The rapidly evolving role of digital tools, such as telemedicine, online platforms and ai, emphasises how a strong digital presence not only enhances patient engagement, but also ensures brand loyalty. In addition, the article draws upon the critical importance of cybersecurity in protecting a doctor's brand. Building a strong brand presence in the healthcare sector, not so rarely attracts data breaches and cyber threats that might heavily undermine trust and reputation. This study acknowledges the challenges and forthcoming trends in healthcare branding to propose a comprehensive framework for integrating digitalisation and cybersecurity into an aligned branding strategy.

Keywords: doctor's branding, international healthcare, digitalisation in healthcare, healthcare cybersecurity

JEL: M3, I1, O3

Introduction

Branding, once primarily associated with products and large corporations, has increasingly extended into the realm of personal branding, particularly within service-based sectors like healthcare. Traditionally, branding has served as a means of establishing unique identities and cultivating consumer loyalty. This concept has found significant relevance in the healthcare industry, especially for specialist doctors whose services are both intangible and critical. Furthermore, the shift toward personal branding reflects broader changes in healthcare, where individual providers must distinguish themselves by showcasing both their clinical skills and their ability to provide empathetic, patient-centred care in an increasingly competitive global market.

Previously, healthcare branding was primarily the domain of hospitals and institutions. However, in today's digital landscape, individual specialists such as oncologists, cardiologists, and neurologists are expected to cultivate their own brands by leveraging

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digital platforms like telemedicine, professional websites, and social media to build reputations that transcend geographic boundaries. The growing importance of digital tools in healthcare branding, further fueled by the COVID 19 pandemic, highlights the fundamental shift in patient-doctor interactions, many of which now commence online. A personal brand allows specialists to project key attributes - such as competence and trustworthiness - before any in-person consultations take place. Despite the advantages of personal branding, the rise of digital platforms presents challenges. Tools like social media and professional websites enable doctors to communicate their skills more broadly, yet they also blur the line between genuine professional competence and self-promotion. This raises the important question whether the commodification of a doctor's image, driven by metrics such as online reviews and social media followings, undermine the traditional trust inherent in healthcare, detracting from its altruistic mission. While a strong digital presence can undoubtedly enhance visibility, it risks reducing complex medical expertise to superficial indicators, potentially eroding the depth of trust that is essential in healthcare relationships.

Moreover, with the globalisation of the healthcare industry and the rise of medical tourism, the need for specialist doctors to maintain a well-crafted, consistent brand that resonates with international patients amplifies. However, the global healthcare landscape introduces new challenges, including navigating different patient expectations, cultural nuances, and legal frameworks concerning patient care and data protection.

As specialist doctors rely more heavily on digital platforms to manage patient relationships, protecting sensitive health data becomes a vital component of maintaining trust. Thus, the importance of cybersecurity in personal branding cannot be overstated. The risks associated with cybersecurity breaches are severe, potentially resulting in significant reputational damage that can be particularly devastating in an industry where trust is paramount. Regulations like the GDPR (General Data Protection Regulation) and HIPAA (Health Insurance Portability and Accountability Act) further emphasise the need for robust cybersecurity measures, positioning data security as a critical aspect of brand management for healthcare professionals.

This aricle aims to investigate the intersection of digitalisation and cybersecurity and its pivotal role in shaping the personal brands of specialist doctors in international healthcare. It suggests that while digital platforms offer unprecedented opportunities for enhancing visibility and expanding reach, they also introduce cybersecurity challenges that can undermine patient trust and damage reputations. The study deduces that as the healthcare industry continues to globalise, specialist doctors must navigate the complex landscape of branding, digitalisation, and data security to remain competitive and trusted in an ever-evolving market.

Branding for specialist doctors in international healthcare

In today's globalised healthcare landscape, specialist doctors are increasingly required to cultivate a brand identity that transcends national boundaries and aligns with the unique challenges of digitalisation and cybersecurity. Unlike conventional corporate branding, the branding of specialist doctors must prioritise trust, credibility, and the consistent delivery of positive patient outcomes. These elements are crucial, as patients often make healthcare decisions based on emotional connections and perceptions of reputation rather than transactional factors.

The principles of branding – identity, image, and equity – are crucial in healthcare, yet they require adaptation for specialist doctors. In today's landscape, doctors can no longer rely solely on years of practice to build their reputation. They must actively manage their personal brands by utilising digital platforms to showcase their expertise, build trust, and engage with potential patients globally. For specialist doctors digital visibility becomes crucial, as international patients increasingly rely on online resources - such as professional websites, social media profiles, and patient reviews - when selecting providers. These digital touchpoints form the foundation of a specialist's brand, offering insights into their expertise, ethical standards, and treatment philosophy. However, the digitalisation of healthcare also presents challenges. For instance, while online reviews can enhance credibility, they are often subjective, and success in digital consultations or telemedicine may depend on technological factors, rather than medical competence alone.

In the international healthcare arena, personal branding significantly impacts patient choice. Unlike local patients who may have direct access to doctors, international patients often rely on the digital representation of a specialist to make critical decisions. However, there are concerns that this market-driven approach may place more emphasis on a doctor's brand than on the quality of care they provide. Although personal branding democratises healthcare by offering patients more choices, it may also skew decision-making toward doctors with strong marketing strategies rather than superior clinical outcomes.

Thus, even though personal branding can rapidly elevate a doctor's international reputation, it is the consistent delivery of quality care, ethical behavior, and secure management of patient data that sustains long-term credibility. In this digital age, cybersecurity plays a pivotal role in maintaining trust. Patient data breaches can irreversibly damage a doctor's brand, especially in international contexts where legal frameworks around data protection vary significantly. As healthcare becomes more digitalised, specialists must not only navigate technological advancements but also ensure compliance with global cybersecurity regulations to maintain patient trust.

The tension between digital engagement and data protection is a critical issue in healthcare branding (Fig.1). While doctors are encouraged to interact openly with patients on digital platforms, these same platforms pose privacy risks. The General Data Protection Regulation (GDPR) in Europe exemplifies how stringent data protection laws can both protect patients and impose significant compliance burdens on international healthcare providers. The challenge lies in balancing open, transparent digital engagement with rigorous cybersecurity measures to protect patient data and maintain brand integrity.

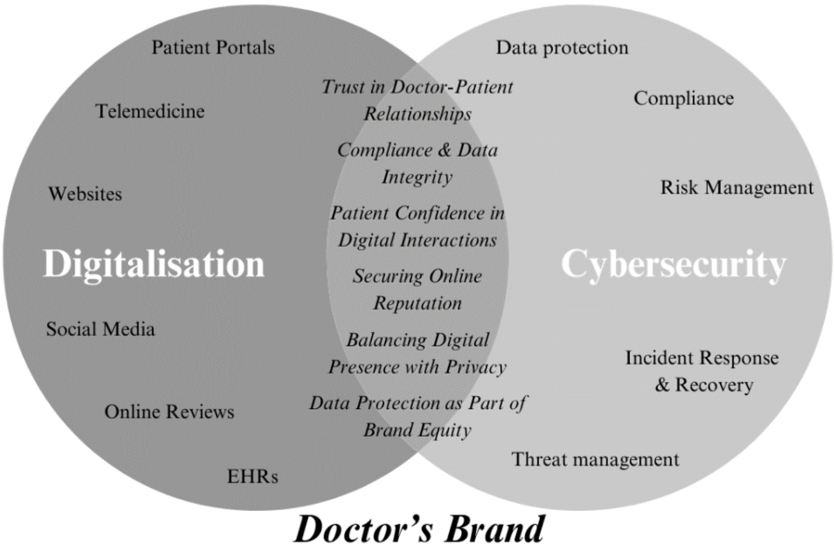

Figure 1. Intersection between digitalisation and cybersecurity in healthcare and their impact on the doctor's brand

Branding for specialist doctors in international healthcare is further complicated by the need to navigate cultural differences and diverse regulatory environments. Cultural perceptions of doctors vary across countries, with some patients expecting authoritative, directive communication, while others value collaborative, shared decision-making approaches. For example, a branding strategy that emphasises the doctor's authority may resonate well in cultures that view doctors as experts who guide the treatment process. Conversely, in cultures that prioritise patient empowerment, branding that highlights collaboration may be more effective.

Moreover, regulatory challenges are an ever-present concern for healthcare brands operating in international markets. Different countries have varying degrees of regulation regarding healthcare advertising, telemedicine, and data protection. This regulatory disparity makes it difficult for specialist doctors to maintain a consistent brand across borders.

The role of digitalisation in healthcare branding

The transition from traditional to digital branding represents a significant shift in how specialist doctors develop and maintain their professional reputation. Historically, doctors built their brands through referrals, word-of-mouth, and localised reputations. However, digital tools like telemedicine, social media, and websites now allow specialists to expand their influence globally, offering both opportunities and challenges.

One major benefit of digitalisation is the democratisation of healthcare branding. Specialists can now engage with patients across borders, extending their reach beyond local markets. Previously, global branding was largely reserved for renowned institutions, but digital platforms now allow individual practitioners to achieve success as well. However, the crowded digital landscape demands more than mere participation. Specialists must differentiate their digital presence through high-quality content, active patient engagement, and technical proficiency. Failure to do so risks diluting their brand rather than enhancing it. Moreover, digitalisation introduces a level of transparency that traditional branding lacked. Online reviews and patient testimonials are easily accessible and can significantly impact a specialist's reputation. A single negative review can damage a carefully built brand, making the management of digital interactions and service quality paramount.

The global reach offered by digitalisation is a compelling opportunity for specialists, allowing them to expand their influence and shape their reputation internationally. Telemedicine, for example, allows doctors to provide virtual consultations, extending care to underserved regions and offering second opinions. This enhances the perception of accessibility and patient-centredness. However, telemedicine also raises concerns about maintaining the same level of personalised care as in-person consultations. Additionally, cross-border consultations face challenges such as cultural differences and language barriers, which can affect outcomes and perceptions. What is more, data privacy laws further complicate global digital branding, rising the need to navigate different legal regulations and insurance systems across countries. If not managed carefully, these challenges can erode the trust that doctors seek to build through their digital presence.

Online reviews and ratings are another critical factor. Platforms like Healthgrades and Google can enhance a doctor’s brand with positive feedback, but negative reviews can quickly tarnish reputations. Reputation management is therefore essential, yet many doctors are not adequately prepared for this digital reality. The algorithms on these platforms may also create biases in patient perceptions, further complicating the competitive landscape.

Social media platforms have also become essential tools for engaging with both peers and patients. Sharing case studies, medical insights, and patient testimonials helps specialists establish authority and expertise. However, managing the fine line between professional and personal interactions on social media is crucial. Privacy breaches and unregulated interactions pose significant risks, and specialists must carefully balance accessibility with professionalism.

While the benefits of digitalisation are clear, there is also the risk of depersonalising healthcare. Digital tools can enhance convenience and efficiency, but they may reduce the human element that is integral to patient care, potentially undermining the relational aspects of a doctor’s brand.

Websites and patient portals are vital components of a specialist’s digital brand. A well-designed, user-friendly website serves as a central hub for patients to learn about a doctor's services, credentials, and testimonials. Websites also facilitate patient engagement through appointment systems and portals. However, the digital divide presents challenges for doctors expanding globally, as not all patients have equal access to digital platforms. Ensuring accessibility across both digital and non-digital channels becomes crucial in maintaining a global presence.

Patient portals, offering secure access to medical records and direct communication with doctors, are also integral to building patient loyalty and trust. These platforms improve efficiency and provide continuity of care, which strengthens a doctor's brand.

However, reliance on digital platforms for patient engagement introduces cybersecurity risks. As more patient data becomes digitalised, robust data protection measures are essential to prevent breaches that could severely damage a specialist's reputation.

Cybersecurity and its impact on the specialist doctor's brand

In today's healthcare landscape, the integration of digital technologies has made cybersecurity a crucial concern for specialist doctors seeking to protect their professional brand and reputation. Confidentiality and trust are essential in the doctor-patient relationship, making data protection a strategic imperative in brand management. As digitalisation reshapes healthcare, specialist doctors must treat cybersecurity not only as a legal and ethical duty but also as a core element of their brand identity, especially in international markets. This analysis highlights the critical link between cybersecurity and a doctor's brand, emphasising that robust security measures are vital for maintaining trust, preventing reputational damage, and strengthening brand equity in a globally interconnected system.

The rise of telemedicine, electronic health records (EHRs), and patient portals has expanded vulnerabilities to cyberattacks, making healthcare a prime target for data breaches. Unlike financial information, healthcare data is permanent, containing lifelong health histories and other sensitive details. For specialist doctors, protecting this data is essential to maintaining patient trust. Any failure in data protection can lead to significant reputational damage, as patients expect doctors to safeguard both their health and their personal information.

As healthcare adopts more digital tools, securing telemedicine platforms, patient portals, and IoT (Internet of Things) devices for remote care becomes increasingly complex. Specialist doctors face the dual challenge of providing high-quality care while ensuring robust data protection. Failing to protect patient information can erode trust, diminish brand loyalty, and result in legal consequences—especially in international contexts, where a single breach can tarnish reputations across borders.

Data breaches pose a significant risk to the trust and reputation of specialist doctors. In healthcare, this loss of trust is particularly damaging due to the personal and sensitive nature of medical data. The emotional fallout from a breach can lead patients to feel betrayed, causing a breakdown in the doctor-patient relationship. For specialist doctors, such a loss of trust can significantly harm their professional brand, as patients may associate them with negligence rather than care and professionalism. However, doctors can rebuild trust by addressing breaches proactively and communicating transparently. In international markets, where reputations are especially fragile, swift action is crucial to recover from damage.

Specialist doctors must also comply with complex data protection regulations, such as the GDPR in the European Union and HIPAA in the United States. Non-compliance can lead to heavy penalties and long-term reputational harm, signaling indifference to patient privacy. On the other hand, adherence to these regulations demonstrates professionalism and commitment to patient protection, enhancing a doctor's reputation in an increasingly global healthcare market.

To safeguard their brands, specialist doctors must prioritise cybersecurity strategies such as encryption and compliance with international security standards. Effective data protection, including end-to-end encryption, not only meets legal obligations but also reinforces the doctor's commitment to patient privacy. In a competitive healthcare environment, where patients often seek care across borders, a strong cybersecurity stance can serve as a powerful differentiator for specialist doctors.

Challenges and Future Trends in Digitalisation and Cybersecurity

The rapid pace of digital transformation in healthcare has brought forth a complex paradox for specialist doctors - the balance between innovation and security. As digital tools like telemedicine, AI (artificial intelligence) – driven diagnostics, and cloud storage revolutionise healthcare delivery, they simultaneously increase vulnerability to cyber threats. The potential to improve patient outcomes and expand reach globally is undeniable, but these advancements expose sensitive patient data to new risks. The „innovation-security paradox" requires careful navigation to ensure that the benefits of digitalisation do not compromise trust – a cornerstone of any specialist doctor's brand.

Healthcare professionals must confront with the question of how to fully embrace these technological advancements without compromising cybersecurity. AI, for example, holds great promise for enhancing diagnostic accuracy and operational efficiency. Yet, it also introduces significant risks, such as algorithmic errors, data biases, and potential manipulation if security measures are inadequate. A breach of AI systems could not only lead to misdiagnoses but also to unauthorised use of patient data, undermining the credibility that specialists have worked hard to build. Therefore, digitalisation, if not accompanied by robust cybersecurity, could erode the trust that underpins a specialist's brand, particularly in international settings where cross-border trust is essential.

A key challenge in maintaining this balance is the allocation of resources for cybersecurity. For smaller practices and individual specialists, the costs of implementing advanced security measures can be prohibitive. Larger institutions may be able to absorb these costs, but smaller entities often struggle to do so without sacrificing other critical aspects of their services. However, overlooking cybersecurity as an unnecessary expense is shortsighted. A single data breach can have devastating financial and reputational consequences, particularly for specialists who rely on trust to maintain patient relationships. Rather than viewing cybersecurity as an additional cost, it should be seen as an investment in the protection of a specialist's brand and patient loyalty.

The future of digital healthcare branding is also deeply intertwined with technological advancements. AI, for instance, offers unprecedented opportunities for personalised healthcare, allowing specialist doctors to offer individualised care that enhances their reputation for innovation and excellence. However, AI's integration into healthcare branding is not without risks. Over-reliance on AI systems, if flawed, could lead to damaging consequences, including legal challenges and eroded patient trust, particularly in cross-border healthcare contexts. Ensuring that AI systems are free from biases and errors is crucial for maintaining the integrity of a specialist's brand.

Another transformative technology in healthcare is blockchain, particularly for its role in enhancing data security. Blockchain's decentralised, tamper-proof nature provides an ideal solution for securing patient data, which is critical for building trust in a global healthcare market. For specialist doctors, especially those operating internationally, blockchain can ensure compliance with various data protection regulations, alleviating concerns over data security that often hinder the adoption of digital healthcare services. Although challenges remain in implementing blockchain, its potential to enhance patient trust and secure a specialist's brand outweigh the initial costs and logistical hurdles.

As digital healthcare evolves, so too will global data protection regulations. Stricter laws, like the European Union's GDPR and the US's HIPAA, have set new standards for handling patient data, with severe penalties for non-compliance. Specialist doctors who operate across jurisdictions must stay ahead of these evolving regulations to avoid reputational damage and legal repercussions. Proactively adopting rigorous data protection measures not only safeguards patient information but also serves as a key differentiator in the healthcare market.

Conclusion

Digitalisation has expanded specialist doctors' brand visibility, allowing them to reach international patients through telemedicine, websites, and social media. These tools enhance patient engagement and care delivery but also introduce new cybersecurity risks that can undermine trust. Data breaches pose significant threats to a doctor's brand and credibility, particularly in an industry where trust is paramount. Balancing the benefits of digitalisation with robust security measures is critical to protecting both reputation and patient data.

To effectively leverage digital tools, specialist doctors must prioritise cybersecurity. This includes regular security audits, compliance with regulations like GDPR and HIPAA, and transparent communication with patients about data protection practices. Implementing encryption, multi-factor authentication, and secure telemedicine systems is essential for safeguarding sensitive patient information. By integrating these strategies, doctors can build a trustworthy, secure brand that not only enhances visibility but also maintains patient confidence.

Future research should explore the role of AI and blockchain in healthcare branding, particularly their potential to improve patient trust and data security. Additionally, examining the impact of varying regional data protection laws on international healthcare branding could offer insights into how doctors can navigate these challenges while maintaining compliance and trust in global markets.

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INTERNATIONALIZATION AS A STRATEGIC FACTOR OF THE DIGITAL TRANSFORMATION

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Abstract

Digital transformation is rapidly and fundamentally reshaping organizations, yet strategic approaches to managing this transformation remain underexplored. This study investigates the role of internationalization as a strategic factor influencing the adoption of digital technologies within organizations. Utilizing data from Bulgaria collected through Eurostat's „*ICT Usage in Enterprises*" survey, the analysis reveals that organizations with higher levels of internationalization exhibit greater levels of digital transformation. These findings provide insights into how an organization's strategic decision to expand into international markets affects its digital transformation. The study's contributions are towards: (1) enhancing the understanding of organizations' digital transformation strategies, (2) supporting organizations in aligning their digital transformation initiatives with their internationalization strategies, and (3) offering a foundation for future comparative studies of business organizations across Europe.

Keywords: digital transformation, organization, strategy, internationalization
JEL classification: M10; M15, L10

Introduction

There is a general understanding of the potential of digital technologies to help organizations gain competitive advantage, yet the phenomenon of digital transformation remains poorly understood. Both research and practice often struggle to provide concrete guidance for organizations to improve their operational and strategic performance (Fischer et al., 2020). To a large extent, this can be reflected in the statement that strategy, not technology, is the driving force behind digital transformation (Kane et al., 2015). That suggests organizations must develop a digital transformation strategy to achieve their business goals with the help of technology. But why is it so difficult for them to strategically direct and manage it?

Various factors interwind and influence the decisions of the organization about its digital transformation, creating a lot of complexity that is challenging to understand -

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by the organizations' management and by the researchers in the field (Hanelt et al., 2021). Therefore, further research is essential not only to advance the theoretical understanding of digital transformation and organizational strategic decision-making but also to assist organizations in leveraging technology for competitive advantage. Given the multifaceted nature of digital transformation and the variety of influencing factors, this study specifically investigates one of the less explored aspects – internationalization - to examine the strategic relationship between an organization's decision to expand its operations internationally and its digital transformation efforts.

Through existing research, it is evident that internationalization can act as a catalyst for innovation, as exposure to diverse markets and competitive environments stimulates the adoption of new technologies and business practices (Autio et al., 2000). This is further supported by the argument that internationalization drives organizational learning, leading to the development of dynamic capabilities that are essential for digital transformation (Knight & Cavusgil, 2004). As firms expand into new markets, they encounter different regulatory environments, customer preferences, and competitive dynamics, which stimulate the adaptation and refinement of their digital strategies.

These observations invoke an important question – *does more internationalization mean more digital transformation in the organization*? To explore that relation, the current study focuses on the analysis of organizations where digital transformation is measured through the adoption of digital technologies and the level of internationalization is measured by their foreign trade. Conclusions that will be derived by studying this relationship are beneficial to the strategic understanding of the phenomenon of digital transformation and internationalization, impacts it.

The study is not exhaustive, as it does not incorporate additional strategic factors that may influence digital transformation, nor does it employ a longitudinal approach to observe the relationship between internationalization and digital transformation over time. Its primary aim is to examine the potentially significant relationship between internationalization as a strategic factor, and the organization's digital transformation, thereby providing a deeper contextual understanding of strategy in this domain. It attempts to address these theoretical and practical gaps, contributing to the emerging field of digital transformation strategy by offering insights that highlight the role of strategic management in shaping digital outcomes.

Theoretical background and research hypothesis

Multiple factors are related to the strategic management of the organization at different levels, influencing and at the same time being influenced by its strategic choice. In the scientific research, there are some essential and measurable factors, influential to the strategic management. Considering the features of the strategy – its long-term orientation, scope and scale, allocation of resources and sustainability (Chandler, 1962), internationalization could be considered as an important factor related to all of these strategic aspects. Hence, it is a factor that is also related to the digital transformation strategy, viewed as a management choice to integrate digital technologies and transform business operations, improve the value creation and gain competitive advantage for the organization in a rapidly evolving digital environment (Grover & Kohli, 2023).

Internationalization refers to the process in which organizations expand their operations beyond the domestic market. This strategic factor is tied to the corporate strategy because it significantly affects the organization's long-term orientation, growth opportunities, and overall competitive positioning. Internationalization provides organizations with access to new markets, becoming a critical factor for growth - by expanding into foreign markets, organizations have access to new customers, opportunities to increase sales and overall market share. Presence on international markets allows organizations to diversify their sources of revenue, reducing dependence on the domestic market, while ensuring more stable revenue streams and greater resilience against economic downturns in each local market. The global footprint can also provide benefits such as economies of scale, access to new technologies, and the ability for an organization to utilize a diverse supply chain. In addition, internationalization allows organizations to spread their business risks across multiple markets. Internationalization is a fundamental decision at the corporate level that affects the overall strategic direction of the organization (Porter, 1987).

It is also often seen as a challenge for organizations, considering that geographical, cultural, economic and regulatory differences between countries can lead to numerous restrictions on sales in foreign markets. In recent years, in the context of various crises, many organizations have increased their level of internationalization to cope with the consequences of their domestic markets. The use of digital technologies has become one of the most important elements to enable these organizations to find new opportunities for growth (Bertello et al., 2021). Internationalization also exerts pressure for greater competitiveness and adaptation to different standards in the foreign markets. Thus, organizations that increase their internationalization develop other capabilities to successfully overcome foreign trade restrictions (Feliciano-Cestero et al., 2023). This broader set of capabilities includes various skills related to change management, digital literacy, adaptability, collaboration and customer orientation. According to the literature the acquired knowledge is a major source of competitive advantage (Grant, 1996; Kogut, 1992; Nonaka, 1994). Since the implementation and maintenance of new technologies also requires certain financial investments and an infrastructure that will increase the competitive advantage of the organization, this drives the demand for additional resources, including qualified personnel, new practices and skills - internationalization is a new source of resources as it opens up opportunities to acquire new capabilities and knowledge. In other words, internationalization forces organizations to adapt and make a number of organizational changes to carry out their digital transformation, which makes it a strategic factor in that field.

Based on these notions, an impact of internationalization on the digital transformation of the organization is expected. Therefore, this study proposes the following hypothesis:
H1. *Internationalization has an impact on the digital transformation of organizations.*

Methodology

Primary analysis involves describing the data and exploring interrelationships using statistical techniques and tests of significance. An ordinary least squares (OLS) regression analysis is used to evaluate the possible functional dependencies between the variables and to test the hypothesis. Regression analysis is a useful method for examining the relationship between independent variables and a dependent variable, as well as for predicting changes in the dependent variable in response to changes in the independent variables (Cooper & Schindler, 2014). The research adopts a quantitative approach and utilizes empirical data (refer to the *Data* section) to construct the variables included in the proposed model.

Data

The study used data from the survey „*ICT Usage in Enterprises*“[1], conducted by National Statistical Institutes among organizations within the framework of business statistics surveys and on the basis of annual implementation of the regulations of the European Commission in accordance with Regulation (EU) 2019/2152 of the European Parliament and of the Council of Europe. The data covers all mandatory variables under the European Union legislation on information society statistics. The sample used data for 4739 private non-financial organizations in Bulgaria for the year 2022 (with 1446 entries that export goods on foreign markets), the information being collected through a harmonized Eurostat questionnaire that is updated every year to reflect the rapid development in the field of information and communication technologies. The study leverages this publicly available data that provides reliable and comparable information on the spread and use of ICT in enterprises in all EU member states to support not only the current research but also to ensure verifiability and reproducibility of the research outputs, as well as comparability and opportunities for further research on the digital transformation of business in Europe.

Dependent variable

The „*ICT Usage in Enterprises*“ survey’s results were used in the construction of the dependent variable *digital transformation index* (DIGITAL) for each of the organizations included in the dataset. The survey inquired organizations to provide *yes* or *no* answer to questions about technologies used in their business – from fixed internet

[1] Eurostat, https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm (accessed on 28 September 2024) and National Statistical Institute, Republic of Bulgaria, https://nsi.bg/en/content/2841/ict-usage-enterprises accessed on (30 September 2024)

connection, company website, social media, ERP system, CRM applications, Cloud to AI technologies. Altogether, 25 questions from the survey were used to construct the dependent variable DIGITAL, where answers to the questions were coded with 1 for *yes* and 0 for *no* (questions about technologies used in their business – from fixed internet connection, company website, social media, ERP system, CRM applications, Cloud to AI technologies. Altogether, 25 questions from the survey were used to construct the dependent variable DIGITAL, where answers to the questions were coded with 1 for *yes* and 0 for *no* (questions represented as q_i in the equation below). A simple aggregate method was used to create the index DIGITAL where equal weight is given to each of the 25 questions. The final variable is with maximum value of 100 (positive answer to all questions) and a minimum value of 0 (negative answer to all questions). Here is the equation of the index:

$$DIGITAL_i = (\Sigma_0^n q_i)/n*100)/n*100 \qquad (1)$$

Independent variable

In addition, data from the annual business statistics was used for the independent variable *internationalization* (INTR). It includes all annual exports for each organization (in thousands, BGN), distributed in 15 groups with coding ranging from 0 – *no exports* to 15 - *over 50,000*. The data is also comparable between all EU member states and is collected according to a uniform Eurostat methodology[1].

Control variables

The study included two control variables that can affect the digital transformation - firm size (SIZE) and firm age (AGE).

The size of the organization, in number of employees, has been widely studied in the literature and indicated as an important factor affecting the digital transformation of the organization (Moker et al., 2020). It is suggested that organizations with access to more resources can use them to implement new digital technologies, as they are often predisposed to invest more in innovation compared to smaller organizations (van de Vrande et al., 2009). Therefore, SIZE was included to control the effect of firm size on its digital transformation. The SIZE is represented in three groups according to number of employees coded as 1 – *10 to 49* employees, 2- *50 to 249 employees*, 3 – *over 250 employees* and in line with the EU definitions for small, medium and large enterprises (see European Commission's *SME Definition - User Guide 2020*[2]).

[1] Statistics Explained, Eurostat, the statistical office of the European Union, https://ec.europa.eu/eurostat/statistics-explained/ (accessed on 28 September 2024)

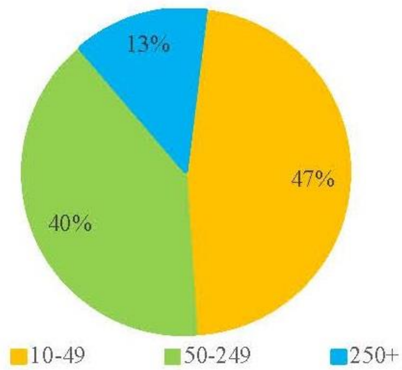
[2] User guide to the SME definition, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (European Commission)

In addition, older organizations are inclined to become inflexible and not suited to appropriately reacting to a changing environment (Barron et al., 1994) as it is the case with digital transformation. Therefore, AGE was included to control its effect on digital transformation, where it represents the number of years since company's initial listing.

Descriptive statistics

In this section descriptive statistics of the variables of interest are presented. To gain better understanding of the dataset, we first observe the control variables. In term of firm size (Figure

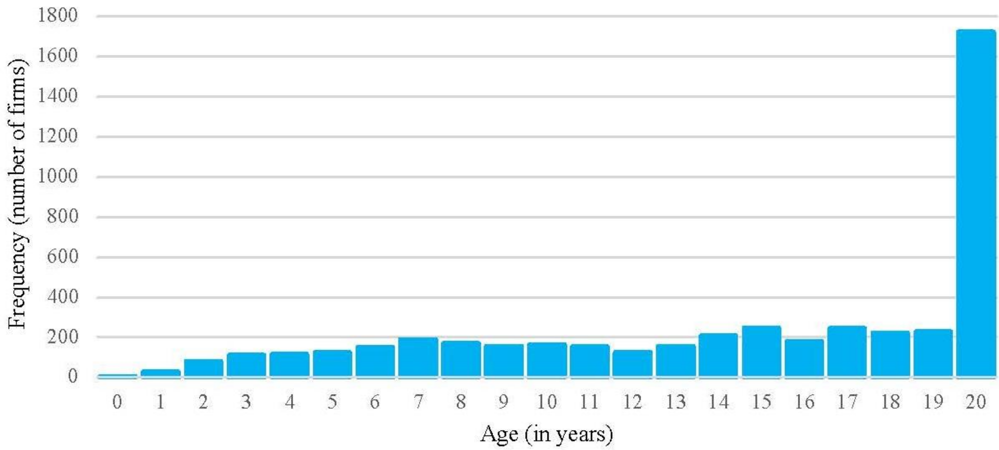
1) the largest proportion of firms consists of those with *10 to 49 employees*, representing 47% of the observations, followed by firms with *50 to 249 employees* at 40%. Firms with more than 250 employees constitute the smallest group.



Source: Authors' own calculations.

Figure 1. Size of firms (in number of employees) – SIZE

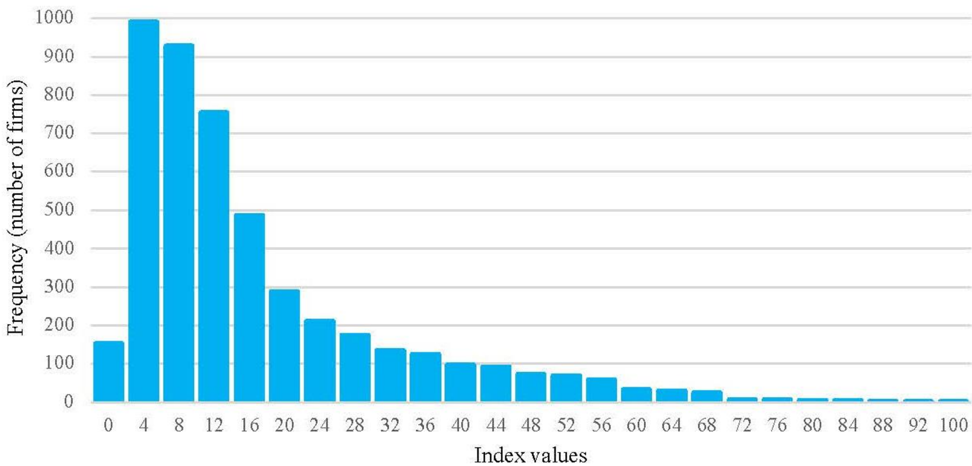
Regarding the age of the firms (Figure 2), over one-third of them are more than 20 years old with the average firm age in the sample being approximately 15 years.



Source: Authors' own calculations.

Figure 2. Age of firms (in years) – AGE

When considering the dependent variable DIGITAL (Figure 3), the distribution is right-skewed, indicating a concentration around the low values of the index. The mean value is 16.5 out of 100 and the median is even lower – 12. These statistics suggest that the digitalization of Bulgarian businesses is still in its early stages.



Source: Authors' own calculations.

Figure 3. Distribution of the firms based on digital transformation index – DIGITAL

Estimation model

To examine the proposed relationships, this study used linear regression. The testing model for the relationship between internationalization and digital transformation of the company was formulated as follows (H1):

$$DIGITAL_i = c + \beta_1 INTR_i + \beta_2 SIZE_i + \beta_3 AGE_i + \varepsilon_I \quad (2)$$

where DIGITAL represents the digital transformation of the organization; INTR is the level of internationalization measured by the volume of annual exports, SIZE is the number of employees and AGE is the number of years the organization has been active since its first registration util the year of the survey, c is the constant and ε is the random error term.

Given the right-skewed distribution of the dependent variable, we suspected the presence of heteroskedasticity, which was confirmed through the White test. To address this issue, we applied Huber-White-Hinkley heteroskedasticity-consistent standard errors.

Empirical results

The results of the linear regression model (Table 1) confirm that internationalization (INTR) has a positive and statistically significant effect on digitalization. Specifically, a one-unit increase in the independent variable is associated with a 0.2-unit increase in the level of digitalization. To further validate the positive relationship between the two variables, a Pearson correlation analysis was conducted, yielding a correlation coefficient of 0.18**, which is consistent with the findings from the linear regression model.

Table 1. Linear regression results

Dependent Variable: DIGITAL		
Variable	Coefficient	Std. Error
C	5.73***	(0.70)
INTR	0.20***	(0.06)
SIZE	7.1***	(0.36)
AGE	-0.1*	(0.04)
Adjusted R-squared : 0.12		
Huber-White-Hinkley heteroskedasticity consistent standard errors in parentheses Method: Least Squares		
Observations: 4739		

*p < 0.05; **p < 0.01; ***p < 0.001

Source: Authors' own calculations.

Discussion

Empirical data shows internationalization has a strategic impact on the digital transformation of organizations (H1) – suggesting that as the organization expands its operations on a foreign market, it is compelled to adopt more digital technologies to compete effectively, which, in turn, impacts its digital transformation journey.

The results of this study align with other works in the field that point to the fact that that digital transformation is not merely a technological upgrade but a fundamental shift that requires rethinking how value is created and delivered across global markets (Wamba et al., 2017). Internationalization could act as a catalyst for this shift by exposing organizations to diverse market conditions, consumer preferences, and regulatory challenges, thereby fostering innovation and enhancing digital capabilities (Autio et al., 2000). The process of global expansion drives the adoption of new digital tools and platforms, as suggested by the role of digital platforms that enable firms to scale internationally with greater ease and efficiency (Cennamo & Santalo, 2013). In the context of the European Union this insight suggests that the European single market, that seeks to guarantee the free movement of goods, capital, services, and people, may enable the digital transformation of organizations by facilitating their internationalization.

Moreover, the relationship between internationalization and digital transformation is emphasized by the development of dynamic capabilities. These capabilities, including organizational agility, flexibility, and resilience, are critical for firms to adapt to the rapidly changing digital landscape and to navigate the complexities of operating on international markets. The ability to learn from diverse environments and apply that knowledge across different contexts is crucial for sustaining competitive advantage in today's economy (Teece, 2018). In the realm of the European business, this observation also means that because of the single market dynamics, organizations in Europe may also be more competitive on a global scale, building new capabilities, driven by the digital transformation fostered regionally.

The term "digital transformation" is often applied too broadly and lacks practical clarity, necessitating a tailored understanding for each organization to avoid overgeneralization. A detailed description of the interrelationships between strategic factors and digital transformation can enhance strategic management, helping organizations navigate their transformation efforts more effectively. This study contributes by contextualizing digital transformation strategies and demonstrating that internationalization is a critical factor that organizations must consider when developing their digital strategies. The findings indicate that increased internationalization correlates with higher levels of digital transformation, emphasizing that organizations expanding into foreign markets need technology that supports competitiveness. Managers should therefore implement strategic actions that align digital transformation efforts with internationalization goals to secure a competitive advantage and effectively navigate the digital changes required for global competition.

Conclusion

The objective of the study was to explore the relationship between internationalization, as a strategic factor, and digital transformation of the organization. The study contributes to the practical understanding of the phenomenon of digital transformation through an empirical observation on the relations between strategic factors, such as internationalization, and the adoption of digital technologies. Thus, by describing the interrelationships between the variables included in the study, it makes the management's task in this field better understood, and the formulation of strategy justified and tailored to the specific strategic choices of the organization in line with their strive for competitive advantage on international markets.

Another contribution of the study is the attempt to utilize data, collected for the needs of macro-level representation (e.g. digital transformation in the enterprises in EU state members) and translating it to micro-level in a conceptual model concerning individual organizations. This not only enables the applicability of the insights at the level of the organization, but also offers opportunities for comparability between organizations, industries and countries in EU on the relations between strategic factors and the digital transformation. Moreover, observations also serve for prescriptions on what organizations can do to improve their strategy in the field of digital transformation.

However, as it is the case with any focused studies, this one does not go without limitations too. Future research could be enhanced by including additional measurement methods, such as interviews or survey questionnaires, adding qualitative insights that can be coupled with the quantitative observations to provide a better understanding of the results through the strategic attitudes of organizations toward the digital transformation and impact of different factors such as internationalization.

Another limitation that could be addressed in future research is the static position of the described interdependencies, which originates from the data used for a certain period (one-year period, 2022). This could easily be overcome if the variables are tracked over several periods for the same organizations.

Moreover, the verification of the explanatory power of the proposed estimation model on data for organizations in only one country (Bulgaria) can be supplemented, since the uniform methodology for collecting the data included in the study implies that the same model can be applied to all member states of the EU, where same survey's data is available. In addition, it is expected that future research's comparability will contribute to the even greater explanatory power to the model and its validation as a reliable tool for explaining, comparing and prescribing strategic actions regarding the digital transformation of organizations in Europe. There are practical considerations for such comparability too. The current research's data suggests for the majority of organizations in Bulgaria the level of digital transformation is low (variable DIGITAL; mean=16, max=100) which is also supported by the latest European Commission's Digital Decade report showing that enterprises' adoption of advanced digital technologies (either cloud, data analytics, or AI) in Bulgaria stands at 29.3%, significantly below the EU average of 54.6% and ranking last among EU member states[1]. Questions arise as to whether in other member states internationalization of the enterprises is higher and thus boosting their digital transformation. Future in-depth comparative analysis may provide insights on that and suggest directions for public policies to improve the environment for enterprises that will enable adoption of more digital technologies.

Last but not least, the study could be extended by including additional strategic factors as variables relevant to the digital transformation of the organization, e.g. turnover, research and development (R&D) expenses etc., thus contributing to a multi-faceted approach to the complexities of digital transformation and the strategic choices related to it.

In conclusion, researching the digital transformation of organizations through observations about the impact of strategic factors on the adoption of digital technologies is a potent way to study and understand the phenomenon in strategic context. The applications of the current study are both theoretical and practical. The study builds on the scientific literature on the subject, while the results can be used to guide the management's approach to digital transformation when formulating the organization's strategy in this area to improve the sustainability and competitiveness of the business.

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THE EU AS A MODERN POLITICAL NETWORK

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Abstract

The successful future of the EU is a function to its complete political and conceptual rethinking as a political project. The EU should stop being considered as some utopian project with an idealistic end, or the so-called French „finalité" – it has to be increasingly perceived as several parallel political projects or as a network, a system of interconnections mainly in the field of economic competition and political cooperation, which is self-balancing. The EU will certainly have to part with what we can define as a political culture of total optimism.

There are many developments in this direction which define the EU as a „decentralized network-like structure" or even directly as „the Network Europe", which is at the service of its members and where the „imperial" political center does not have the weight and influence it had in the past. The EU is a structure in which currently and paradoxically, the member states have much greater and equal opportunities, and despite the apparent instability of the structure, it is precisely the flexibility and the mentioned new rethinking as strategic factors that will allow it to be developed successfully in the future.

Keywords: rethinking, network, decentralization

Introduction

The issue of the transformation and development of the EU into a modern polycentric political network (with all the conventionality of such a concept) has several aspects, and we should note that many of the elements of the development of the EU which so far, and also in the future, imply and allow make similar metaphorical comparisons.

First of all, it is the very transformed character of the EU, which, as a result of its repeatedly increased heterogeneity, has become a hybrid organization in its own right, in which there are both elements of classical international organizations and also of federal states (not coincidentally, some of the leading states in it are federal like Germany or quasi-federal like France or Spain), and, why not, some from a contemporary modern empire. The overall nature of the EU is indeed suggested by its likening to a network-like flexible structure.

Next, the management of the ever-increasing differences within the EU is possible precisely through the creation and strategic development of a similar network-like structure, which on the one hand guarantees the diversity of all the elements involved

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in it, and on the other – is sufficient flexible and responsive. This has already been „tested“ in recent years during the Covid-epidemic and the asymmetric shocks resulting from the military conflicts in Ukraine and the Middle East. The development of such a political network in the future can be strongly supported by factors such as the ever-increasing power of companies – social networks, the non-governmental sector, regions and other (sub)-national players.

The network as a concept – imperium and/or federation?

The idea of the EU's polycentric network actually exists for a long time and is mostly related to the theories of the so-called „differentiated integration“ (DI), which, however, often also represents difficulties of a methodological nature, mostly related to the semantic horizon of the individual concepts mentioned, such as „federalization“, „Europe at different speeds“, „Europe à la carte“ ("Menu Europe"), „variable geometry“, „Europe of concentric circles“, etc. For example, „federalization“ can be understood hypothetically as such of the entire EU, i.e. the realization of the old idea of a „United States of Europe“ and a federalization of a part of the EU, concentrated mostly around the member states of the Eurozone. The versions sometimes could hardly be distinguished if we add also the concepts like „Europe of concentric circles“ and „Variable Geometry Europe“. Similarly, definitional difficulties also create many of the existing instruments of DI in the treaties, which can be used as a transitional stage to something quite different, i.e. to actually mix several DI models. Adding to the difficulties is the complexity of the political debate at the highest level, in which various other concepts such as „center of gravity“, „hard core“, „flexible Europe“, „Euro-Union“, „group of leaders“ and ("Pioneer group") intervene, but in this case the important thing is to point out how this whole debate is proof of the existing unanimity that the EU cannot develop evenly and equally for all its members and the individual views mainly aim to find the most suitable formula for its management. The development of concepts about the types of integration in the EU contributes to it truly acquiring the character of a modern political network.

One of the main theories or rather realities that fuel such comparisons is the likening of the EU as a modern empire – many-faceted and diverse, sometimes unpredictable, but at the same time flexible and adaptable. Although the concept of „empire“ has an ambiguous character, which makes it difficult or rather risky to draw firm conclusions about such a development of the EU, such comparisons are very tempting and quite natural, since the history of Europe is, to a large extent, actually a history of empires and they are an inalienable part of the continent's past. The belief that the EU is a modern, inclusive and cooperative empire (if we can even talk about an „empire“ in such a model) finds basis both in the researchers on the issue and in the very practice of the organization – for example, the enlargement of the EU can be seen as a kind of imperial policy, but it should not be forgotten that countries become members of the EU entirely of their own desire and after negotiations. In addition, in the EU „empire“ it is the member states that play a decisive role in the future of the organization, unlike the „provinces“ during the actual empires. Such comparisons and definitions actually serve rather as a support for the conceptual clarification of the contemporary essence of the EU through analogies from the past, thus becoming a starting point for research on its future development and governance. In this sense, the positives of the EU being likened to a new, modern empire are mainly sought, mainly in the direction of flexibility, the ability to balance and more effectively adapt to different trends. After all, the multiplied diversity in the EU is, among other things, an opportunity, as it represents the testing of new forms of cooperation, new negotiations and new alliances, more competition and more innovation. In this direction are the definitions of the EU as a „decentralized network-like structure“ or „Network Europe“, which is at the service of its members and where the „imperial“ political center does not have the weight it had in history.

Currently, the EU is a structure in which, paradoxically, the member states have much greater and equal opportunities, and despite the apparent instability of the structure, flexibility is the strategic factor that will allow it to develop successfully in the future. The increased cultural diversity within the European value tradition certainly contributes to this flexibility, or in other words – the EU has become „a flexible community of clashing identities with different historical and cultural narratives"[1]. The well-known British researcher Paul Taylor also shares a similar opinion, namely the transformation of the EU into a complex, diverse, networked structure, according to whom the EU currently represents a miniature model[2] and, above all, a harbinger of the evolving international system – polycentric, diverse and in essential degree unpredictable.

We can add other authors to the arguments that precisely the quasi-imperial nature of the EU actually represents an opportunity for greater flexibility, the ability to react and adapt at any moment, guaranteeing the durability and stability of the structure. For example, the British diplomat Robert Cooper's article „The New Liberal Imperialism"[3] for the publication „World Observer“ draws interesting parallels between the main characteristics of empires that are known from history and the contemporary character of the EU, which he called „a cooperative empire based on cooperation and freedom at the expense of ethnic domination and absolute monarchy”[4]. Similar positive attitudes towards the imperial modernity of the EU can also be found in other works sustained in the spirit of Weltinnenpolitik, which emphasize the possibility that such kind of characteristics actually mean, or rather guarantee, a stability and durability of the EU. An interesting work in this direction is the book of the American scholar Mark Lennard „Why the EU will rule the 21st century"[5], an essentially strong apologetic of the EU,

[1] Lattarulo, Alessandro „European Union Enlargement“ New York: Palgrave; 2004; 55.
[2] Taylor, Paul, „The End of the European Integration“, 137.
[3] Cooper, Robert, „The new liberal imperialism“, Observer Worldview, 7th April 2002.
[4] Ibid.
[5] Leonard, Marc, Why Europe should run 21st century, 2006.

but in this case the more interesting thing is that Leonard sees the advantages of the EU in its flexibility or „a decentralized, networked structure“ that allows for flexibility and adaptation to any historical context, in addition to the EU's „soft power“ to enforce European values around the world.

The federal elements as a network – based structure

In many of the classics of federalism, the federal structure is not understood as a centralized state association with strong power, but on the contrary – a decentralized flexible structure that itself includes a large amount of heterogeneity. Under this idea, the federal government retains only some basic competences, most often foreign policy and defense, while at the same time leaving decentralization as the main principle in economic relations. Moreover, it is believed that the Single Market project of the 1980s has actually been similar since the years immediately after WWII. Nevertheless, pushing individual federal elements into the governance of the EU would have a strong positive meaning for it, but not in the sense of stronger centralization, on the contrary – in accordance with the mentioned classical postulates of federalism for greater flexibility. Pushing through such elements, but without creating a true federation, would actually bring back much of the power that is now concentrated in the EU at the European or regional level, mostly through its openness and polycentricism. Currently, for example, and paradoxically at first glance, the EU is much stricter towards its member states than many federal states in history – for example in the areas of budget, economy and finance. In a structure with more elements of federalism, its individual components would have more freedom in this regard, the most important thing being not to disrupt the overall structure.

In the aforementioned book „Why Europe Will Run the 21st Century?“ – a strong apologetic of the EU – the American researcher Mark Leonard develops the idea that it is the heterogeneity, or more precisely the presence of many power centers, that is the basis of the EU's strength, as it guarantees the flexibility of its political construction and ability to react[1]. To this, he adds as a positive the lack of a specific political vision (including a federation – DP), which would limit and stiffen its development, as well as the idea of the „soft transforming power of Europe“. In our opinion, such views correspond only to a certain extent to reality, especially when it comes to the EU's ability to react quickly – in recent years, precisely the inability of the EU to react quickly and adequately to various international crises has been pointed out as one of its main weaknesses. By introducing federal elements, however, which are most often associated with seizing more power in the field of foreign policy, the EU could significantly improve its ability to quickly react to various foreign policy crises.

Another element that is related to the development of the polycentric network character of the EU is the so-called „enhanced cooperation“ that plays a preventive role to

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[1] Leonard, Marc, Why Europe should run 21st century, 2006.

manage the EU's heterogeneity while preserving the Community approach, institutional structure and judicial review. Like other major changes in EU primary law, enhanced cooperation also builds on already established or imposed flexible practices in European law, such as the general flexible clause for moving from unanimity to qualified majority, the so-called „passerelle“ clause, or the accession of individual member states to already concluded separate agreements or European acts in force. The development of this practice in the individual treaties – from Amsterdam to Nice to Lisbon – aim to make it more flexible and more efficient. Apart from that, well before the start of the Brexit procedure, the role of the United Kingdom within the EU can be defined as the role of a kind of „laboratory“ for participation in various flexible formats, including through subsequent inclusion in them, which in turn corresponds to the main principle of enhanced cooperation, namely openness. Nevertheless, at the beginning of its development, increased cooperation was perceived more often as a threat than as an opportunity. However, its current philosophy, also reflected in the TEU, namely its adoption as a last resort and once it has been established that the objectives of cooperation cannot be achieved in any other way shows that it is indeed a sought-after and essential tool to overcome the deadlock in EU due to its increased heterogeneity. For example, in the case of the European patent, the possibility of enhanced cooperation comes after more than 30 years of fruitless negotiations and proves that indeed this specific form of differentiated integration (DI) can serve to overcome the blocking of new initiatives within the EU .

The network like character of EU as a base for the re-thinking of the European project

One of the main conclusion for finding a successful model of the future EU development in that it goes through a complete re-thinking of the EU project itself, or in other words, the means of future management of the EU are primarily political and we can even say philosophical. The specific steps mentioned can help and should by no means be ruled out, but they should come second or, more precisely, a proper political rethinking of the EU will only show the steps in question that follow and can be taken. As an example, we can point out that all meaningful attempts to manage the EU more successfully from now on are in the form of political documents. However, this rethinking goes through several very painful moments, namely the direct recognition that the EU's aspiration to achieve some kind of finality (the so-called French „finalité“) in the form of a state or even a state-like entity is largely a failure and it will always be a failure when the development he submits to such thinking. In other words, and as mentioned, the EU should stop being thought of more as some ultimate, utopian, teleological project, and more as a network or system of interconnections mainly in the field of economic competition and political cooperation, which is self-balancing. Along with this, the EU must surely break away from what the Italian political scientist

Giandomenico Maggione calls a „political culture of total optimism“[1], or, loosely interpreted, the revision of the EU as a product of some ultimate, idealistic goal. To this we can also add the rejection of the „naive liberal-meliorist vision“ of the EU as an instrument for unstoppable historical progress[2]. Last but not least, the EU must resolutely rethink and eventually abandon the now classic dogma of an „ever closer union“ of the states and peoples of Europe. The EU should start to be seen as a „governance platform“ or as „several parallel and not necessarily related political projects“.

Besides the strengthening of the intergovernmental elements in the relations between the member countries, they also bear the main burden of where and how the European project will continue to move. The important rethinking of the overall concept of the European union, as well as the finding of the specific technological tools for managing the overall union, also depend on the positions of the member states. It is this good interaction between the states that can meet the strategic vision of EU governance – without a single governance model, with a high degree of flexibility and with a clear awareness of its polycentric nature.

As highly sensitive crisis moments become more frequent (the Covid-19 crisis, the war in Ukraine), the role of the member states, and especially of their leaders, will increase, however, the opportunities and experience for mediation, the bases data and the ability to work with human capital, which the EC has and which cannot be replaced very quickly. Such an approach also requires the understanding that the aspiration to necessarily find a general solution for all (one-size-fits-all-solution) inevitably pits individual groups of countries against each other. Instead, the goal should be the creation of flexible coalitions on the principle of modern communication platforms, which certainly requires an increase in the coalition culture, and the EU institutions to play a more supportive role. These coalitions could be successfully joined by the non-governmental sector, the regions and other structures that over the years have built a system of connections and interaction within the EU and whose potential should be fully utilized. With a complex structure such as the EU, however, every statement related to its management should be understood and applied very carefully, which fully applies to the above conclusions. Each one of them, although the fruit of many studies, hides its own risks and should not be understood as the final model for EU governance – so, for example, in terms of flexible coalitions, for example, we can say that a problem in balancing the interests between these coalitions of states will certainly exist, and one of the reasons for this is the „deep aversion“ of the leading state in the EU – Germany – to severe political conflicts[3].

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[1] Rohac, Dalibor, cit., “Governing the EU in an Age of Division”, Edward Elgar Publishing, UK, 2022, 1.
[2] Ibid.
[3] Ibid.

The future development of EU as a modern political network

We also come to the different patterns and degrees of commitment in EU governance that are valid for its present, and there is no reason to doubt that they will become increasingly inevitable for its future as well. Although developing this direction relatively recently, the sources on the matter are quite interesting and detailed, covering practically all possibilities – from the transformation of the EU into a pure federation to that of a classic international organization of the intergovernmental type. Some of the developments are devoted more or less precisely to these two extreme hypothetical models, while others consider the already existing possibilities of „variable“, „differentiated“ or „flexible“ integration.

The future development of the EU as individual models also implies the development of a similar type of network-like structure, regardless of whether it is the so-called „concentric circles“ or for something else. The main characteristics of the models are also relatively clear – in the case of concentric circles, this is the setting of a sharp border between the individual circles, i.e. lack of flexibility, while in the model of the so-called „clubs“ is the creation of vague and hard-to-predict structures, as well as the inevitable and unprincipled pursuit of „taking only the best“ (the so-called „cherry-picking“ strategy). In the end, the concentric circles model is clearer, more principled and simpler, and in addition to it, the institutional integrity of the EU can be preserved to a very large extent. However, it brings much more risks from a political point of view, especially in the long term because of the possibility of individual countries falling permanently and irreversibly to the extreme periphery of the EU, while the model of „interest clubs“ implies the participation of all willing countries in many more configurations. but they, as we noted above, are very unpredictable and difficult to manage. Ultimately, the most important thing about both models is that these are the main opportunities for the EU to continue its development.

Regardless of the different configurations that may develop from now on, it is clear that the EU will in any case be forced to adopt much more flexible forms of governance, in which the manner of policy-making is maximally adapted to its expanded diversity. With so many countries having different problems in implementing the fundamental characteristics of democracy, an „open method of coordination“ based on constant checks, good practices and an enhanced monitoring will be required more than the classical traditional community methods of adopting legislation. This seems considerably easier from a policy-making point of view, but raises well-known questions about the EU's capacity to ensure uniform implementation and policy coherence across all member states.

The future model of development and management of the EU will not be unique and definitive. In reality, to a very large extent, European integration is already carried out through several parallel moving and not always necessarily connected integration projects such as Schengen and the Eurozone as the most popular, but also many others, as we saw in the previous part. Some of them (Schengen) also involve countries that are not formal members of the EU. Poland, for example, does not participate in the Charter of Fundamental Rights, and Denmark has an opt-out clause for non-participation in the EUROzone, but we saw the overall picture of participation in the various projects in the previous part. Here, it is more important to clearly state that the outline of the concrete possibilities for the future development of the EU necessarily goes through its conceptual, existential and even philosophical consideration. The fact is that such an academic and political debate takes place practically continuously, but its results can hardly be summarized unambiguously. As a result of the mentioned parallel projects, a „polycentric" order and a polycentric governance is gradually being created in the EU through many decision-making centers that are formally independent of each other. This means „open centers that are sufficiently spontaneous, able to self-regulate and self-organize".[1]

As a result of the aforementioned parallel projects, a „polycentric" order and governance is gradually being created in the EU through many decision-making centers that are formally independent of each other. This means „open centers that are sufficiently spontaneous, able to self-regulate and self-organize"[2]. This kind of management relies on horizontal intelligent deliberation to correct mistakes and self-reform, but one of the important skills of this system is „being able to set limits".

Strong political leadership and vision are required to clearly state and rather follow the strategy that the EU is not (for a long time) a single homogeneous community, but is increasingly becoming several different integration projects running in parallel. For example, there is no underlying logic why membership of the Single Market should necessarily go hand in hand with membership of the Schengen or EMU system. These different integration projects do not always and do not necessarily overlap, nor do they necessarily cover the same countries. In some of them (Schengen) there are even countries that are not formal members of the EU, others are not members of individual initiatives, and others have the right to opt-out or de facto apply it. The paradox is that the above has been a fact for a long time, but until now it seems to lack its clear articulation at the highest political level, correspondingly its follow-up in the development strategy.

The topic of rethinking the European idea is multi-layered and can be looked at from a variety of perspectives. If, for example, we have to visualize it, the EU has long ceased to represent a linear sequence, but is increasingly becoming a network-like structure balancing its contradictions. The aforementioned polycentric governance is gradually being created in the EU through many decision-making centers that are formally independent of each other. This means „open centers that are sufficiently spontaneous, able to self-regulate and self-organize".[3] This kind of governance relies on horizontal intelligent deliberation to correct mistakes and self-reform, but one of the important skills

[1] Rohac, Dalibor, cit., "Governing the EU in an Age of Division", Edward Elgar Publishing, UK, 2022, 1.

[2] Ibid.

[3] Ibid.

of this system is „being able to set limits“ or in other words – the EU is too big to solve some problems and too small to to decide others.

Conclusion

Examples of successful adaptation of international organizations to changed conditions in modern political history are numerous, and we have no reason to think that the EU itself does not have the capacity to find a truly successful formula for its future development. In this case, we should emphasize that its problems are mainly internal, caused by the growing heterogeneity, and not so much by the changed external conditions, i.e. the decisions should also come from the union itself and above all from the member states and their leaders. More political will and vision are needed, which have always been crucial at difficult times in the EU's history.

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PROSPECTS FOR THE DEVELOPMENT OF INTERNATIONAL STRATEGIC ALLIANCES (IAS) BETWEEN THE EU AND CHINA

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Abstract

This report examines international strategic alliances (ISA) between the European Union (EU) and China, highlighting the economic, political, and regulatory challenges inherent in these relationships. While partnerships in sectors such as technology, green energy, and the automotive industry provide substantial economic benefits, tensions between the EU and China continue to grow due to differing policies and approaches to free trade and security. The report explores the limitations of these alliances and the potential risks posed by the political and economic imbalance resulting from China's state subsidies and market control. The future of ISAs is expected to hinge on the EU's ability to balance its economic interests with the political demands of its Western allies and the push for greater autonomy.

Keywords: international strategic alliances, European Union, China, economic cooperation, free trade

Introduction

This report aims to analyze the International Strategic Alliances (ISAs) between the European Union and China in the context of growing geopolitical tensions and economic challenges. According to the author, the problem is rooted in the need to find a balance between the EU's economic interests and political considerations related to relations with China. Existing solutions include the development of strategic partnerships in sectors such as the automotive industry, green energy and telecommunications, despite the constraints imposed by political instability, trade barriers and regulatory differences. The expected results of the author's research include a better awareness of the potential benefits and risks of deepening the FTA with China and the identification of strategies to balance the EU's economic interests and political priorities.

Current state of EU-China relations

At present, the relationship between the European Union and China is complex, characterized by a combination of cooperation and competition. The EU seeks to maintain a balance between its strategic autonomy and its close relationship with the US, while not wanting to choose unambiguously between the two. Relations with China are

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important to the EU's economic interests as China represents a significant market, although there are political and trade challenges related to limited access to the Chinese market and differences in systems. The EU's strategic autonomy is expressed in attempts to maintain trade and investment cooperation with China, as reflected in the frozen EU-China investment agreement. Although the EU criticizes China for violating human rights and other issues, it refrains from more confrontational approaches like those of the US, preferring diplomacy and seeking a balance between interests (Casarini, 2022).

The current state of relations between the European Union (EU) and China is characterized by increased caution between the two countries. Although in the past the dialogue between the two countries was encouraging, especially after the liberalization of the Chinese economy and its opening to the world market, today these relations are more complicated (Bērziņa-Čerenkova, 2023).

García-Herrero (2023) highlights that EU-China relations are marked by the EU's growing concern about excessive economic dependence on China, especially in key sectors such as green technologies and critical raw materials. Initially, the EU saw China's membership in the World Trade Organization as an opportunity to expand global trade, but over time it has emerged that China continues to use a policy of maintaining closed sectors that restrict foreign access. This leads to a growing trade deficit with China and a realization of the need for a „de-ricking“ strategy for the EU. De-risking differs from the idea of decoupling, with the EU aiming to reduce its dependencies on critical Chinese goods without completely separating itself from the Chinese market (García-Herrero, 2023).

This strategy is perceived in China as potential protectionism, although the EU claims that it is not directed against China. At the same time, the concept of strategic autonomy of the EU also evokes different interpretations. While China sees this as an opportunity for the EU to distance itself from US influence, the EU sees strategic autonomy as a way to strengthen its economic and political independence. China holds the view that interdependence is a natural outcome of a globalized world and criticizes the EU's approach, which begins to view cooperation from a zero-sum perspective (Center for China and Globalization, 2023).

China perceives „de-risking“ as mostly negative, seeing it as a repackaging of the concept of „decoupling“, which aims to exclude the country from the global trade and economic system. Chinese representatives express concerns that this policy is contrary to the principles of fair competition and violates the rules of the World Trade Organization (WTO). The Chinese side emphasizes that the concept of de-risking introduced by the EU actually leads to a deterioration of relations and an increase in uncertainty for business, having a negative impact on strategic sectors such as renewable energy and digital infrastructure (Center for China and Globalization, 2023).

On the other hand, according to Jin and Xu (2023), EU-China relations in 2023 are in the process of adaptation, with both sides continuing to maintain engagement and dialogue in order to strengthen cooperation and overcome differences. Despite the impact of the pandemic and the crisis in Ukraine, both sides prefer to refrain from conflicts and seek common interests to steer bilateral relations in a positive direction.

Despite communication and re-establishment of contacts following the pandemic restrictions, trust between the EU and China remains at a low level. The war in Ukraine has been a constant point of contention, with China maintaining a neutral stance but simultaneously presenting different narratives to different global audiences (Pepermans, 2023). In this context, EU-China relations in 2024 continue to develop against a background of low trust and the prevailing management of disagreements rather than partnership.

In 2024, relations between the European Union and China are changing significantly, marked by new dynamics and important diplomatic events, among which is the visit of Chinese President Xi Jinping to Europe in May. This is his first visit since the pandemic, and it includes important stops in France, Serbia and Hungary. The visit symbolizes China's attempt to strengthen its diplomatic position in Europe amid rising geopolitical tensions and the realignment of global economic and political ties (Lim, 2024).

The main objectives of Xi Jinping's visit are related to strengthening China's diplomatic presence and influence in Europe, especially at a time when the European Union is reassessing its economic ties and strategic orientation in the face of growing concerns about China's global ambitions and its regional commitments, including ties with Russia. Xi sought to use European discussions of strategic autonomy to promote a more balanced relationship between Europe and China while reducing Europe's dependence on the United States (Lim, 2024).

During the visit to France, Xi and French President Emmanuel Macron discussed both economic and geopolitical issues. Economic discussions focused on France's drive to reduce its trade deficit with China, as well as issues such as subsidizing China's electric vehicle industry, which is the subject of European investigations. The visit included the signing of agreements in sectors such as aerospace, energy and agriculture to boost bilateral trade (McCarthy, 2024).

The visits to Serbia and Hungary highlight China's growing role in Eastern Europe, where China is using its infrastructure investments, including the Belgrade-Budapest railway project, to boost its economic and political influence in the region. These countries, which are part of the Belt and Road Initiative (BRI), play a key role in China's strategy of deepening relations with Central and Eastern Europe, leading to some divisions within the EU on policies towards China (McCarthy , 2024).

The strategic implications of Xi's visit to Europe are significant, with China using the moment to position itself as an alternative global leader that can offer different economic and political benefits to those of the United States. Xi sought to emphasize the importance of open trade and warn against protectionist measures that could disrupt global supply chains, especially in the context of tensions over Chinese electric vehicles.

The new dynamics in EU-China relations in 2024 reflect not only economic interests, but also growing geopolitical tensions, especially related to the conflicts in Ukraine and the influence of Russia. Europe expresses concern about these global issues, while China tries to balance its economic and political priorities.

The influence of the G-7 on trade relations between the EU and China

The G7 is an important global economic and political forum that has a significant impact on trade policies and strategic alliances. As a platform that brings together the largest developed economies, the G7 shapes global economic trends and directions through its declarations and decisions. The G7 position is often a catalyst for changes in trade and economic relationships between countries, especially when discussing topics such as economic coercion, market practices and technology standards. G7 members, including the United States and the European Union, play a leading role in setting global trade rules, and any change in their positions has a significant impact on international trade relations, including those with China (Council on Foreign Relations, 2023).

The G7's political declarations on China play a significant role in shaping the international trade environment, with particular attention paid to criticism of China's unfree market practices and intellectual property violations. One of the main themes that regularly features in G7 statements is how China's economy often benefits from government subsidies and market mechanisms that are considered contrary to the principles of free trade. This causes serious concerns in Europe and among other Western countries, especially when it comes to companies such as Huawei and ZTE, which dominate the telecommunications and high-tech sector (Lynch and Caulcutt, 2024).

An example of these criticisms is the way China supports its state-owned companies with direct subsidies and privileges, while creating barriers for Western companies trying to enter the Chinese market. European companies face a number of regulatory restrictions in China, including technology sharing obligations and restrictions on entering specific sectors. At the same time, Chinese companies can freely enter the European market, often with an advantage thanks to support from the Chinese state. This creates an imbalance that is further exacerbated by allegations of intellectual property violations (Lynch and Caulcutt, 2024).

Another example is the attitude of the G7 towards the technological advances of Chinese companies such as Huawei. Huawei is a leading player in the 5G technology sector, but G7 member states have raised concerns about the potential for abuses and national security threats linked to Chinese state interference. Some EU countries, such as Germany and the UK, are deciding to restrict or ban the use of Huawei products on their 5G networks due to security concerns raised by Chinese law, which requires Chinese companies to cooperate with government authorities upon request. In these cases, pressure from the G7 and the US was a key factor in making these decisions, demonstrating how G7 political declarations can affect the EU's trade and technology relationship with China (Global Times, 2024).

As a result of these political declarations and criticisms, tension is created in the relations between the EU and China. On the one hand, the EU seeks to maintain stable economic ties with China, especially in terms of exports and investments. China is a key trading partner of Europe, and the interdependence between the two regions is increasing, especially in areas such as electric car manufacturing, green technology and telecommunications. On the other hand, the EU is under pressure from its Western allies, especially the US and other G7 members, to limit its relations with China and introduce measures to protect security and economic ethics. This conflict of interests puts the EU in a difficult position where it has to balance between its economic interests and its political commitments to its Western allies (Casarini, 2022).

On the one hand, the EU shares the main principles laid down in the policies of the G-7, such as those regarding free trade, the need to comply with international standards and rules, and, accordingly, the protection of intellectual property. On the other hand, the EU has strong economic ties with China, which are vital to many of Europe's industrial and commercial sectors (BusinessEurope, 2020).

China is not only a key player in the world market, but also an important partner for Europe in terms of technology and investment. Chinese companies are playing a leading role in innovations such as 5G technology and electric cars, which puts Europe in a difficult position. On the one hand, it must protect itself from potential risks associated with Chinese influence, but on the other hand, it cannot afford to insulate itself from the key advantages that come with Chinese investment and cooperation. One area where the EU needs China is green energy, where Chinese companies are among the leading producers of solar panels and energy storage batteries. These technologies are crucial to the EU's ambitious goals of climate neutrality and sustainable development (BusinessEurope, 2020).

Infrastructure projects are also an area where Chinese investment plays a key role. Many EU Member States, especially in Eastern Europe, are involved in initiatives related to China's Belt and Road Initiative, which provides significant investment in transport infrastructure and logistics. Such projects help to modernize regional infrastructure, but at the same time lead to political and economic dependencies, which require strategic attention from the EU (AmCham EU, 2023).

At the political level, the EU faces the challenge of balancing these economic interests with pressure from its G7 allies, who are pushing for tighter controls on China and its market practices. In many cases, these Western allies, especially the US, are pushing for action against Chinese state subsidies and monopolies, putting the EU in a difficult situation. Unlike the US, which is pursuing a more confrontational approach to China, the EU prefers a more diplomatic course, trying to keep the channels of trade and investment relations open (AmCham EU, 2023).

This balance between economic interests and political commitments is delicate, especially in the context of increasing global challenges, including technological competition and climate change. China remains an important investor in strategic sectors of the European economy, but at the same time the EU must protect its economic independence and security. Therefore, the EU continues to develop mechanisms to protect its market and technological independence, but without completely closing the doors to cooperation with China, which remains essential for European economic development.

In practice, the EU's strategic positioning between the G7 and China is complex and requires a balance between commitment to Western allies and the need for continued economic ties with China. This dynamic will continue to be important for the future of Europe's trade and political relationships.

Prospects for the development of FTAs between the EU and China

The evolution of the International Strategic Alliances (ISAs) between the EU and China reflects a significant shift in global economic and trade relations over the past few decades. These alliances began to form in the 1980s, when China began to open its economy to foreign investment, and the European Union saw in this process huge opportunities for economic cooperation. Important industrial sectors such as automotive, aviation and energy are becoming central to the development of these partnerships (Smith and Xie, 2010).

One of the most significant examples of the evolution of these alliances is the partnership between Volkswagen and SAIC Motor, which began in 1984. This was one of the first cases in which a major European company entered the Chinese market with a long-term strategy of manufacturing cars in China. Initially, the alliance focused on traditional cars, but over time it shifted to new technologies and electric vehicles, which also reflects global trends in the automotive industry. This partnership is one of the symbols of sustainable industrial cooperation based on mutual investment and technological development (Xijia, 2024).

In the following years, cooperation between the EU and China deepened and expanded in various sectors, including the aviation industry. European aircraft manufacturer Airbus is building a production line in China, a partnership that not only contributes to the expansion of China's aviation capabilities, but also strengthens Airbus' position in Asia. As a result, the alliance between Airbus and Chinese aviation companies has become a key component for the global aviation industry (Xinhua, 2024).

In recent years, with the increasing focus on renewable energy and environmentally sustainable development, strategic alliances between the EU and China have been expanding in the area of clean energy. Siemens, for example, has a partnership with China's State Power Investment Corporation (SPIC) to develop renewable energy technologies, with an emphasis on solar and wind energy (Siemens AG, 2019). This alliance not only supports China's energy transition, but also gives the EU access to the vast Chinese market for new technologies.

Similar partnerships are also seen in the automotive industry, where alliances such as the one between Daimler and BYD contribute to the development of electric cars (Reuters, 2010). These joint ventures not only stimulate economic cooperation, but also support the global fight against climate change by promoting environmentally sustainable mobility.

One of the key moments in the evolution of the FTA between the EU and China is related to the development of technology and telecommunications. Chinese technology giant Huawei, despite political tensions surrounding security, managed to form strategic alliances with European telecommunications companies such as Telefónica and Deutsche Telekom for the development of 5G networks (Lysne et al., 2019). It shows how, despite geopolitical barriers, pragmatic economic interests lead to the construction of important technological alliances.

In relation to global carbon reduction targets, energy companies such as TotalEnergies and CNOOC also play an important role in EU-China cooperation. They are jointly developing liquefied natural gas (LNG) projects and carbon capture technologies, which is important for both Europe and China in their decarbonization efforts (TotalEnergies.com, 2024).

FTAs between the EU and China focus on several key sectors – the automotive industry, aviation, energy, telecommunications and railway infrastructure.

In the automotive industry, the EU and China share an interest in the development of electric vehicles and sustainable transport technologies. As China seeks to reduce its carbon emissions and develop its electric vehicle industry, European automakers are actively participating in this transition, offering innovations and technologies that support both China's environmental ambitions and global climate goals.

The aviation sector is another important area of cooperation where the EU provides technological expertise and capacity to produce advanced aircraft and aviation technology. At the same time, China is expanding its aviation needs as the country's economy continues to grow, and it increasingly needs new transportation solutions for air travel.

The energy partnership, especially in the field of renewable sources, is essential to the joint efforts of the EU and China in the area of environmental sustainability. Europe is a leader in the development of green technologies and policies, and China is the largest market for renewable energy. Cooperation in this sector includes not only clean energy production technologies, but also projects related to energy grid efficiency and energy storage.

In the telecommunications sector, cooperation between the EU and China is focused on the development of modern digital infrastructure, including the deployment of 5G networks. These projects are important for the advancement of digitization and the industrial revolution in both regions. Despite political obstacles, technology partnerships remain important for modernizing European infrastructure and responding to growing connectivity needs.

The rail industry is another sector where the EU and China are cooperating in building new transport links, both domestically and internationally. China has ambitious plans to modernize its rail networks, while Europe offers expertise in the design and construction of high-speed rail systems. This partnership not only improves transport infrastructure, but also supports economic integration and regional connectivity.

These sectors outline the deep and strategic cooperation between the EU and China, focusing on innovation, sustainability and economic development in line with global challenges and opportunities.

The outlook for international strategic alliances (ISAs) between the European Union and China remains both challenging and promising. Despite geopolitical tensions and differences in political systems, economic interests continue to be the main driver for cooperation between the two countries. China is not only one of the EU's leading trading partners, but also a key player in areas such as green technology, renewable energy, telecommunications and the automotive industry, which are strategically important to the European economy.

There are significant opportunities for cooperation in these sectors, especially in the context of global pressure to achieve climate neutrality and technological innovation. Partnerships in the field of renewable energy sources, such as solar and wind projects, as well as the joint development of green technologies, will play an important role in future relations. Chinese investments in these sectors, combined with the EU's ambitions for leadership in the fight against climate change, create a basis for long-term cooperation.

On the other hand, there are also serious challenges related to growing concerns in Europe about Chinese market practices, intellectual property violations and subsidies to state-owned companies. These problems give rise to the need for new regulations and measures to protect European economic interests, which may lead to additional barriers to bilateral trade. At the same time, the EU's strategic autonomy requires the bloc to strike a balance between maintaining its important ties with China and cooperating with traditional Western allies within the G-7 framework.

Despite these difficulties, the outlook for the ICC remains positive, as there are many areas where the economic and strategic interests of the EU and China coincide. If the two countries manage to overcome existing challenges through diplomatic dialogue and regulatory reforms, the IAS will continue to be a significant factor in global economic dynamics.

Conclusion

The prospects for the development of international strategic alliances (SIAs) between the European Union and China are based on the balance between economic pragmatism and political differences. Despite growing geopolitical tensions, the EU and China continue to forge strategic partnerships in key sectors such as the automotive industry, renewable energy and telecommunications. At the same time, however, challenges related to Chinese market practices, intellectual property and political uncertainty necessitate the careful construction of new regulatory mechanisms. The European Union will have to continue to find the balance between maintaining economic ties with China and protecting its strategic autonomy.

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HAS THE UKRAINE-RUSSIA WAR CHANGED THE PATTERNS OF COMMODITIES MARKET: THE CASE OF THE COMMODITY DOW JONES INDEX

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Abstract

The aim of this research is to examine whether seasonal patterns in the Commodity Dow Jone index changed after the start of the Ukranian war. The author is particularly focused on examining whether a February effect can be spotted after the onset of the war. The author also examines the pre- and after- war period to examine whether and how the overall patterns in the index changed as a result of the war.

Keywords: seasonality, Dow Jones Commodity Index, dummy variables, regression

JEL: F3, F6

Introduction

Seasonality can be defined as a recurring pattern of prices doing up or down at a particular month each year due to the events that happen occasionally through this month. Prices in this month significantly differ from prices during the year. When the month passes, they return to their normal levels. The seasonality is a short-term event that does not affect prices in the long-term. Seasonality can be monthly, weekly, daily.

Li and Zhang (Li et. al., 2018) do cross-sectional research of 21 advanced economies and 21 emerging markets. They conclude that in the emerging markets seasonality is not exhibited, while the advanced markets exhibit seasonality. The seasonal effects, however, are too diversified to be summarized in one group. An advanced market can have January, February effects, etc. It depends on the stock exchange. The research of Norvaisiene (Norvaisien et. al., 2015) examines the presences of Halloween effect and other monthly effects in Estonia (Nasdaq OMX Tallinn), Latvia (Nasdaq OMX Riga) and Litva (Nasdaq OMX Vilnius) in the period 2003-2014. As monthly effect they define the statistically significant changes in the prices of the indices during the respective month. The seasonality in October is called Halloween effect.

Their results show that the Estonian stock exchange has a January effect when the returns are higher than the rest of the months. Also, a Halloween effect is a present as in October the returns are significantly lower than in the rest of the year. In Latvia (Nasdaq OMX Riga), however, no monthly seasonality is present. Litva, on the other hand, exhibits January effect with higher returns. Similar monthly effects are present in August, when the returns are higher than in other months but lower than in January.

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In Lithuania seasonality is present dragging prices down. October has statistically significant monthly effect. The research (Norvaisien et. al., 2015) also shows that in all three Baltic countries the 'winter' period (November-April) exhibits higher returns that the 'summer' months (May- October).

Benjamin and Auer (Benjamin & Auer, 2014) test for daily seasonality in crude oil returns and volatilities. They find that on Mondays the crude oil returns are significantly lower than in the rest of the week, while the Monday volatilities are significantly higher than in the rest of the week. Qadan (Qadan M. & Idilbi-Bayaa, 2021) finds Monday and Friday effects in 30-day implied volatility of oil (OVX), gold (GVZ), silver (VXSLV) and the securities of companies from the energy sector (VXXLE). Mondays are associated with increased volatility, while Fridays with a decline. Zhang (Zhang et. al., 2017) finds Monday effect in SZC1, DOW, MERVAL, WIG20, FTSEMIB and STI index. Tuesday effect is present in SPX, SPXT. According to their research (Zhang et. al., 2017) Wednesday effect is present in MEXBOL, JCI, DAX, SMI, AS51, NKY and NZSE50FG. Thursday effects are present in SMEC, PX and PCOMP. Friday effect is present in IBOV, IPSA, RTSI$, XU100, SENSEX, FBMKLCI, IBEX, and HSI index.

Among the most common methods for seasonality detection are regression and time series analysis. Regression models include OLS dummy regression (Norvaisien et. al., 2015), where dummy variables for each month are included. Statistically significant coefficient means presence of a month effect (Norvaisien et. al., 2015). ARIMA is also often used to model seasonality (Zhao et. al., 2022), (Ning et. al., 2022), (Thakkar, 2020), (Bhandari et. al., 2022). ARIMA models are time-series models that can be of order p,d,q. The order of the model shows if differenced data have been used, how many periods were used for differencing, periods of seasonality and the order of integration of the model. ARIMA models, however, are not so flexible and in some cases, are hard to interpret. In recent years, machine learning (ML) has also been applied to model seasonality and predict stock market indices (Fischer & Krauss, 2018), (Patel et. al., 2015). Long-short-term memory models (LSTM) are a ML tool to handle seasonality (Cristofaro et. al., 2021), (Kobiela et. al., 2022), (Li & Li, 2023). They are more flexible than ARIMA models and allow handling long and short-term seasonality ((Kobiela et. al., 2022).

Another popular tool to tackle seasonality and make stock market predictions is the Python and R library – PROPHET (Quick Start | Prophet (facebook.github.io). This a novel library available in R and Python focused on time series predictions. Some authors have used it to build hybrid models combining the PROPHET library and ML algorithms (Guo et. al., 2021), (Borges, Nascimento, 2022). Ning et. al. (Ning et. al., 2022), makes comparison among ARIMA, LTSM and PROPHET to model oil prices. They come to the conclusion that ARIMA and LTSM predict better oil prices but the PROPHET models capture better fluctuations coming from seasonality. Ensafi (Ensafi et. al., 2022) showed that Convolutional Networks (CNN) and the Prophet models can be applied to predict the future behaviour of seasonal data. Other authors (Rick & Berton, 2022) argue that the Prophet models may require training n models, which may not be applicable to all kinds of data. This may make the Prophet models unfeasible for seasonality modelling in some cases.

Our research focuses on the dummy OLS regression (Norvaisien et. al., 2015) in order to test the Commodity Dow Jones Index for the presence of monthly effects before and after the Ukrainian war. Also, to examine if the index is characterized by monthly effects regardless of the Ukrainian war. Next sections comments on the methodology we use. Sections 3 and 4 comment on the results. Section 5 concludes.

Materials and Methods

Data Preparation

We use data about the Dow Jones Commodity Index taken by (https://www.spglobal.com/spdji/en/indices/commodities/dow-jones-commodity-index/#overview). Figure 1 presents the commodities that form the Commodity Dow Jones Index (https://www.spglobal.com/spdji/en/indices/commodities/dow-jones-commodity-index/#overview).

Commodity Contract Code	Commodity Name	Component
CL	WTI Crude Oil	Petroleum
HO	Heating Oil	
LCO	Brent Crude Oil	
RB	RBOB Gasoline	
LGO	Gasoil	
NG	Natural Gas	Natural Gas
W	Chicago Wheat	Wheat
KW	Kansas Wheat	
C	Corn	Corn
S	Soybeans	Soybeans
BO	Soybean Oil	
SM	Soybean Meal	
KC	Coffee	Coffee
SB	Sugar	Sugar
CC	Cocoa	Cocoa
CT	Cotton	Cotton
LC	Live Cattle	Cattle
FC	Feeder Cattle	
LH	Lean Hogs	Lean Hogs
MAL	Aluminum	Aluminum
MCU	LME Copper	Copper
HG	NA Copper	
MPB	Lead	Lead
MNI	Nickel	Nickel
MZN	Zinc	Zinc
SI	Silver	Silver
GC	Gold	Gold
PL	Platinum	Platinum

Source: https://www.spglobal.com/spdji/en/indices/commodities/dow-jones-commodity-index/#overview

Fig. 1. Components of the Commodity Dow Jones Index

Each component has attributed weight based on which its importance in the Commodity Dow Jones Index is ranked. The components and their weights are combined together using a formula described in (https://www.spglobal.com/spdji/en/indices/commodities/dow-jones-commodity-index/#overview) so that one index is formed. In this research we use the final index, which is the called the Commodity Dow Jones Index. This study does not include any other component of the Commodity Dow Jones Index.

The observations included in the research are on a daily basis. They are non-stationary. We convert the prices to returns using the natural logarithm to get stationary data. Then, a new dataset is produced using the ln return (R_{ti})of at the last day of each month. The tested period is January 2013- January 2023. The ln return (R_{ti}) marks the the return of the Commodity Dow Jones index at a given month and year.

We build three models in order to test the Commodity Dow Jones Index for seasonality.

Model 1: OLS Dummy Regression to check for seasonality regardless of the Ukraine war

We build a model similar to (Norvaisien et. al., 2015) that aims at checking if the Commodity Dow Jones Index is characterized by seasonality between January 2013 and January 2023. This model is not adjusted for the start of the Ukrainian war, nor any other shocks that may have occurred during the period. It checks for monthly effects that are present in the data regardless of any shocks.

Model 1 contains twelve dummy independent variables corresponding to each month in the year. The dependent y variable is the ln returns of the Commodity Dow Jones Index (R_{it}).

Model 1:

$$\begin{aligned} Rit = {} & \beta_{1i}D_1 + \beta_{2i}D_2 + \beta_{3i}D_3 + \beta_{4i}D_4 + \beta_{5i}D_5 + \beta_{6i}D_6 + \beta_{7i}D_7 + \beta_{8i}D_8 + \\ & + \beta_{9i}D_9 + \beta_{10}iD_{10} + \beta_{11i}D_{11} + \beta_{12i}D_{12} + \varepsilon \end{aligned} \tag{1}$$

Where Rit is the monthly return of each index. D_1 through D_{12} are dummies for each month of the year. When D_1 equals 1, monthly returns increase in January. If it equals 0, monthly returns increase in any other calendar month of the year. The same applies for D_2 to D_{10}. The βis are coefficients estimated from the regression equation for each month. εt is the error term (Norvaisien et. al., 2015).

Models 2 and 3 check for seasonality in the returns of the Commodity Dow Jones Index before and after the war. They consist of one-year period before and after the war. February 2022 is used as a breaking point as this is the month when the war started. We took a period of one year before and after, as the after period has this length. Model 2 applies model 1 to the pre-war period (March 2021- February 2022).

Model 2: Seasonality checks one year before the Ukraine war (March 2021 – February 2022)

$$R_{it} = \beta_0 + \beta i February + \varepsilon_t \qquad (2)$$

Where R_{it} is the monthly return of the Commodity Dow Jones Index. The term βi is a dummy variable that equals 1 for February returns and 0 for other months' returns. The coefficient βi designates the presence or lack of February effect. The term βi*February represents the difference between mean monthly returns during February over mean monthly returns of the other eleven months (Norvaisien et. al., 2015). The presence of February effect is then represented by a positive and statistically significant βiFebruary. The coefficient β_0 represents the mean monthly returns of the remaining eleven months. This model is applied to the period March 2021- February 2022.

Model 3 reapplies model 2 to the after-war period (February 2022 – January 2023).

Model 3: Seasonality checks one year after the Ukraine war

$$R_{it} = \beta_0 + \beta i February + \varepsilon_t \qquad (3)$$

Where Rit is the monthly return of the Commodity Dow Jones Index. The term βi is a dummy variable that equals 1 for February returns and 0 for other months' returns. The coefficient βi designates the presence or lack of February effect. The term βi*February represents the difference between mean monthly returns during February over mean monthly returns of the other eleven months (Norvaisien et. al., 2015). The presence of February effect is then represented by a positive and statistically significant βiFebruary. The coefficient β_0 represents the mean monthly returns of the remaining eleven months.

As the war started in February 2022, it might be expected to cause disruptions in the Dow Jones Commodity Index that can have long-term effects. We build an additional model following (Girardin & Namin, 2019). Model 4 checks for statistically significant February effect.

Model 4: Additional check for February effect in the Commodity Dow Jones Index

We investigate whether the February mean returns are significantly higher than the returns of the other eleven months for the whole period. To do that, we evaluate a regression equation similar to (Norvaisien et. al., 2015):

$$R_{it} = \beta_0 + \beta i February + \varepsilon_t \qquad (4)$$

Where Rit is the monthly return of the Commodity Dow Jones Index. The term βi is a dummy variable that equals 1 for February returns and 0 for other months' returns. The coefficient βi designates the presence or lack of February effect. The term βi*February represents the difference between mean monthly returns during February over mean monthly returns of the other eleven months (Norvaisien et. al., 2015). The presence of February effect is then represented by a positive and statistically significant βiFebruary. The coefficient β_0 represents the mean monthly returns o f the remaining eleven months.

The four models study at a greater depth the characteristics of the Dow Jones Commodity Index for the first time, allowing insights into its seasonal nature before, after and regardless of the Ukraine war. Therefore, we present a methodology to examine the spill-over effects of the Ukraine war on the commodity futures markets.

Next section comments on the results.

Results

Model 1: checks for monthly effects regardless of the Ukraine war

The first model includes the whole sample January 2013 – January 2023. It checks for monthly effects in the Commodity Dow Jones Index that are part of the natural cycle of the index. As the research focus is on the returns from the index, the expected results would be that returns in some months would be higher than the rest of the year, and lower in other months as many market indices exhibit these patters (Norvaisiene et. al., 2015), (Girardin & Namin, 2019).

Table 1. General Seasonal Model for the Commodity Dow Jones Index (January 2013 – January 2023)

	Coef	Std err	t	P>|t|	0.025	[0.975]
Intercept	0.01	0.05	0.31	0.76	-0.08	0.11
Jan	-0.02	0.05	-0.49	0.63	-0.12	0.07
Feb	0.00	0.05	0.06	0.95	-0.09	0.10
March	-0.04	0.05	-0.84	0.41	-0.14	0.06
April	-0.02	0.05	-0.40	0.69	-0.12	0.08
May	-0.01	0.05	-0.23	0.82	-0.11	0.09
June	0.00	0.05	0.04	0.97	-0.09	0.10
July	-0.02	0.05	-0.32	0.75	-0.11	0.08
August	-0.01	0.05	-0.12	0.91	-0.10	0.09
Sep	-0.02	0.05	-0.50	0.62	-0.12	0.07
Oct	-0.01	0.05	-0.17	0.87	-0.10	0.09
Nov	-0.02	0.05	-0.39	0.70	-0.12	0.08
Dec	-0.02	0.05	-0.42	0.68	-0.12	0.08

Source: author's calculations

Table 1 shows that seasonality is not typical for the Commodity Dow Jones Index. Unlike stock returns (Norvaisiene et. al., 2015), (Girardin & Namin, 2019), the returns from the Commodity Dow Jones Index do not tend to fluctuate with monthly events. The monthly p-values are statistically insignificant at the 1%, 5% and 10% significance levels. The month of February is not an exception. Therefore, monthly seasonality is not typical for the Commodity Dow Jones returns between January 2013 and January 2023. This does not mean that the returns do not exhibit cyclic patterns. Rather the finding means that repetitive patterns that occur each year at a particular month and affect the average returns are not typical for the Commodity Dow Jones index.

Model 1 shows that no monthly seasonality affects the returns from the Commodity Dow Jones Index for the past ten years. As the Ukraine war started in February 2022 and model 1 detected no seasonality in February, models 2 and 3 check if February 2022 can be considered a breaking point where the trend for no seasonality is reversed. Models 2 and 3 check if February 2022 has statistically significant effect on the monthly returns before and after the start of the Ukraine war and what the size of this effect is.

Model 2: Checks one year before the start of the Ukraine war

Table 2 shows the results from model 2, where the sample starts from March 2021 and ends in February 2022.

Table 2. Is February 2022 a Breaking Point in Returns Patterns?

	coef	Std err	t	P>|t|	[0.025	0.975]
Intercept	-0.027	0.013	-2.041	0.069	-0.057	0.002
February 2022	-0.042	0.046	-0.916	0.381	-0.144	0.06

Source: authors' calculations

As table 2 shows during the period March 2021 – February 2022, February does not affect the average Commodity Dow Jones Index returns (p-val. 0.381) as there is statistical insignificance. This result is not surprising as February 2022 is considered to an ending point of the previous period. A breaking point would be expected to change the future pattern rather than the past pattern.

Model 3: checks one year after the start of the Ukraine war

Table 3 shows the output from model 3, where the statistical significance of February 2022 is examined in the period February 2022 – January 2023.

Table 3. Output in the period February 2022 – January 2023

	coef	Std err	t	P>|t|	[0.025	0.975]
Intercept	0.0149	0.013	1.128	0.286	-0.015	0.044
Feb-22	-0.084	0.046	-1.831	0.097	-0.186	0.018

Source: authors' calculations

In the period February 2022 – January 2023, the month of February 2022 has statistically significant effects (p val – 0.97) on the Commodity Dow Jones Index returns.

This means that the patterns till February 2022 changed when the war started. February effect appeared in 2022 and affected the average returns of the Commodity Dow Jones Index negatively. One percent increase in the February 2022 returns would lead to a decrease of 8.4% in the average Commodity Dow Jones Index in the period February 2022 – January 2023. Therefore, the month of February 2022 can be considered a breaking point in the average Commodity Dow Jones Index returns. The question is whether this breaking point has only short-term effects or long-term effects that change the seasonality patters by inserting a February effect. Model 4 tries to answer this question.

Model 4: Additional check for February effect in the Commodity Dow Jones Index

Model 4 follows the same methodology as models 2 and 3 but it includes February 2023. This is done to check if the statistical significance from model 3 is kept when February 2023 is added in the model. If this is the case, then long-term change in seasonality patterns of the index can be proved. Model 4 contains the period between January 2013 and February 2023. Table 4 presents the results.

Table 4. Output from Model 4: Checks for February effect January 2013 – February 2023

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	0.00	0.00	-0.62	0.54	-0.01	0.01
February effect	0.02	0.02	1.32	0.19	-0.01	0.05

Source: authors' calculations

Table 4 confirms that when February 2023 is added to the ten-year dataset, the statistical significance of the February effect is not present. Therefore, when adding February 2023, there is no February effect as it was in model 1. Model 1 shows that for the ten-year period between January 2013 and January 2023, no monthly effects are present, incl. February effect. When February 2023 is added, the lack of February effect is confirmed by model 4. However, model 3 confirms the presence of February effect in the period February 2022 – January 2023.

Discussion

In this research we examine the question of the Ukraine war can affect seasonal patterns in the Commodity Dow Jones Index. Our findings can be summarized in several directions.

- First, February 2022 is a breaking point for the average Commodity Dow Jones returns. This is confirmed by models 1-3. Therefore, the Ukraine war can be considered an event that affected the Commodity Dow Jones Index statistically significant. This is another aspect of the war's consequences.
- Second, the Ukraine war is an event that affects the Commodity Dow Jones returns in the short term as the February effect is statistically significant only in the period February 2022 – January 2023 (model/ table 3).
- Third, in the period January 2013 – February 2023, there is no February effect. Therefore, the Ukraine war does not change the seasonality pattern of the Commodity Dow Jones returns in the long-term. The February effect in model 3 has a temporary short-term effects on the returns, so the February effect is not a change in the seasonality pattern as it is present only in one of the examined periods. The statistically significant February effect in table 3 is actually a shock to the Commodity Dow Jones returns.
- Lastly, table 1 shows that monthly effects are not typical for the Commodity Dow Jones between January 2013 and January 2023, so it is not surprising that the February effect could not be detected by the models. Ukraine war is a shock that does not change the returns long-term patterns.

Conclusion

This research proposes a deeper insight into the effects from the Ukraine war on the commodity markets through the Commodity Dow Jones Index. Unlike many authors citing the irreversible effects of the war on the crops, commodity markets, environment, economies and casualties, this research shows that the Commodity Dow Jones Index is more resilient than previously thought. The Ukraine war affects the index in the short term, and it does not introduce seasonality in the form of February effect. In fact, the statistically significant February 2022 effect is not present in the period January 2013 – February 2023, which means the effects of February 2022 start of the war have already been overcome. So, no change in the long-term seasonal patterns of the returns can be detected.

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EVOLUTION OF INTERNATIONAL FINANCE IN THE CONTEXT OF INTERNATIONAL FINANCIAL SETTLEMENTS

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Abstract

The evolution of international financial settlements spans many eras and civilizations. The origin of institutional financial relations dates back to the era of Ancient Rome. Medieval Italian city-states such as Genoa and Venice developed sophisticated financial instruments, including bills of exchange and banking networks, which facilitated international trade. The Ottoman Empire systematically began to use a number of Islamic financial instruments that allowed its inhabitants to get rich by complying with the religious norms. In England and France of the XVII-XIX centuries, significant changes took place in the financial sphere. England, thanks to the creation of the Bank of England and the development of national debt, has become the center of international finance. In France, financial reforms such as the creation of the Banque de France contributed to the stabilization of the post-revolutionary economy and the development of international settlements. These historical examples demonstrate how various civilizations and States have contributed to the development of international financial instruments. They laid the foundation for a modern global financial system, ensuring its stability and flexibility. Understanding these processes makes it possible to better assess current financial mechanisms and anticipate their further development.

Keywords: Bank History, Financial History, Financial Institutions, Evolution of the Financial Markets, Islamic Finance

JEL: F3

Introduction

International financial settlements have a long evolution and rich history reflecting the development of the global economy and financial system. From the first trading operations in ancient times to modern cross-border transactions, they have gone from primitive barter transactions to complex multi-level agreements.

For the purposes of this report, two concepts that are close should be defined: international settlements and international payments. International settlements can be defined as a set of processes and operations related to the fulfillment of obligations under foreign economic transactions, including the export and import of goods and services, the provision of loans and investments, as well as other types of foreign economic activity. These processes involve the interaction of many participants, including exporters, importers, banks, insurance companies, government agencies and other stakeholders.

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Unlike international settlements, international payments refer to specific financial transactions involving the movement of funds or other financial assets between parties located in different jurisdictions. International payments may include transfers between bank accounts, currency exchange, payment for goods and services, and other transactions that require crossing national borders.

Today's sphere of international settlements has its roots in the past, in some aspects it is very far away. In this section, the most striking and significant episodes of the historical development of this industry for today's sphere of international settlements will be considered.

1. Ancient Rome

Many scientists believe that the foundations of modern finance were laid back in the days of the Roman Empire. Roman law distinguished between private and public spheres of activity. There was no commercial law, and the primacy of customs was recognized to regulate the fulfillment of the terms of contracts. Banks financed private businesses, and the market for private mortgage loans for real estate, which originated during the Republic, but ceased to be used in the imperial era. The emperors relied on tactical and situational decisions of the state administration aimed at specific issues, such as waging wars, suppressing uprisings, building large-scale projects or eliminating the consequences of natural disasters, instead of creating a long-term public debt instrument.

The Muziris papyrus is defined by scientists as the most detailed surviving contractual document of a standard maritime loan from the early Roman Empire (Rathbone, D., 2000). The document contains many errors, from which it can be concluded that the copyist copied the template of the standard contract. In other words, maritime loans in the early Roman Empire were common enough to have a generally accepted structure and form (De Romanis, F., 2020).

Such loans were of a commercial nature and were provided to business partners, not friends or relatives. In ancient times, markets were not anonymous: landowners and merchants were known to moneylenders, at least by reputation. They were free kindred and commercial groups, known from other agricultural economies as well. In ancient Rome, banks could be organized by private individuals who acted in partnership. They could also use the labor of slaves and freedmen, often appointing them agents (Temin, P., 2017).

These social institutions – slavery, partnerships and agency – were defined and regulated by Roman law, taking into account the peculiarities of Rome. Thanks to them, banks were able to create flexible and efficient operational structures. Freedmen – freed slaves, who most often remained beholden to their master, were legally considered independent agents (Caprio, G., 2012).

Inscriptions of the I–II centuries AD indicate the presence of 47 argentaries and coactors and 12 nummularies[1] in Rome, as well as 17 argentarii and coactors and 10 nummularii in Italian cities. Most likely, most Italian cities had at least one bank, and many had several. There were also inter-city connections: for example, the business clan of the Sulpicii was based in Puteoli, but was also represented in Pompeii. Their organization also issued special documents for trials in Capua and Rome (Caprio, G., 2012).

In Roman jurisprudence, one can imagine a case of loan allocation between two banks (Andreau, J., 2020). The subjects of maritime trade needed cash and loans in any port where a sudden storm could drive them, and they could get it. In the middle of the 1st century BC, senators such as Verres and Cicero were able to transfer wealth from Asia Minor back to Rome, including exchanging amounts for local coins that existed at that time. In the middle of the 1st century AD, the wealthy Alexandrian Tiberius Julius Alexander granted King Agrippa II a significant loan, part of which was paid on the spot in cash, and the main amount was to be received in Puteoli. Clearing between banks took place without moving cash coins, instead, lease payments, transfers of tax revenues, etc. were used (Rathbone, D., 2000).

The early Roman Empire pooled funds through financial intermediaries. Interest rates on loans varied, making the Roman financial market more accessible and flexible than the French financial market of the 18th century. There were many private banks in Roman cities, and the conditions for obtaining financing in them often differed for the better from the financial institutions of medieval Europe.

2. Ottoman empire

The successor of the Eastern Roman Empire and Byzantium, the Ottoman Empire, used the system that existed in their territories of Eastern Europe to organize the work of the central bureaucracy. Thanks to the cooperation of representatives of different strata of Ottoman society, it was possible to create a flexible and durable financial system. (Caprio, G., 2012).

The Ottoman state demonstrated a willingness to adapt its military technologies and financial institutions to changing conditions. Pragmatism and flexibility were expressed in the willingness of actors not to be bound by rigid rules based on customs, traditions, religion, past behavior or past enmity. Having emerged in a heterogeneous region populated by Christians and Muslims, they were able to adapt to changing conditions, attract talents and devotion from different sources (Sevket. P, 2013).

The urban population and some sections of the countryside were already part of the monetary economy by the end of the XV century. In the XVI century, there was a significant expansion in the extent of the spread of money as a means of payment. This is confirmed by the sources of that time: the increase in population and urbanization were accompanied by the strengthening of economic ties between urban and rural areas. An

[1] Argentarius, coactor, nummularius – banker, money changer, financier in Ancient Rome

intensive system of trade fairs arose in the Balkans and Anatolia, where peasants and large landowners sold their products to the townspeople. These markets also gave nomads the opportunity to come into contact with both peasants and the urban population. Thanks to the development of trade, a significant part of the rural population began to use coins, especially silver akche[1] and copper mangirs [2] of small nominal value.

This process has contributed to the monetization of other areas. Of particular importance were the markets that sprang up along the pilgrimage routes, especially around Mecca. The Ottoman government ensured the safety of these routes and tried to facilitate the monetary transactions of merchant pilgrims from different parts of Eurasia. The annual pilgrimage to Mecca provided a surge in income in the Ottoman Empire's economy. Support for the caravans included provision of food supplies, payments to tribal leaders for security and transportation of funds by tens of thousands of people. The annual receipts of charitable foundations in Egypt and Anatolia were sent to Hejaz, the capital of Mecca. The total amount of money transfers from the funds corresponded to the amounts sent by the Governments of Istanbul and Cairo. Some of these net receipts were sent from Egypt in the form of grain.

Due to the ban on interest, lending has developed in Islam. A religiously motivated ban on usurious transactions was a characteristic feature of the Mediterranean in the Middle Ages for both the Islamic world and the Christian West. Although the practice of „riba“, denoting usury and interest, was sharply condemned at the dawn of Islam, in a number of passages from the Koran and in all subsequent Islamic religious writings, later Islamic legislation provided for several ways in which the ban on usury could be circumvented (Sevket. P, 2013).

Despite the aforementioned loopholes in the legislation, lending in its traditional form was practically not used in the Ottoman Empire. Instead, other commercial methods were developed that played the same role and made the use of loans unnecessary. Ottoman merchants often used varieties of Islamic business partnerships, practiced in the Islamic world since the Middle Ages. The most common method of financing long-distance trade and some other types of business enterprises was the Islamic mudaraba partnership. According to mudaraba partnership, the investor provided capital or goods to the agent for trading. Then the agent had to return the principal amount, and the profit was distributed between the principal and the agent according to a pre-established scheme. Any capital losses were covered exclusively by the principal. The agent’s responsibility was limited to his time and efforts.

To a lesser extent, the Ottomans also used the Mufawad partnership, in which the partners were considered equal in terms of capital, effort, profits and obligations. According to the Musharaka or inan agreement, the partners were free to invest different amounts and negotiate income and obligations at unequal, but pre-agreed rates.

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[1] The Akche is a small silver coin of the XIV – XIX centuries, which was circulated on the territory of the Ottoman Empire and neighboring states.

[2] Mangyr is a Turkish copper coin of the XIV – XVII centuries.

One of the key instruments for financing long-distance trade was the suftaja, a bill of exchange or letter of credit. The main purpose of suftaja is to speed up longdistance settlements or transfer of funds. In the documents of medieval Egypt, stored in Genizah, suftages are always referred to as the payment of money to the issuing banker in the same form. It was a full-fledged payment instrument, and the bearer could count on the fact that at the destination he would be able to exchange his souftaj for cash. The Government additionally guaranteed timely payment by imposing severe penalties for any delays. Another type of letter of credit was hawala. The most common principle of operation of this tool is that the customer transfers his money for delivery from one country to another. Hawaladar (Hawala operator/broker) accepts cash – usually at their place of work – and charges a moderate commission (and a more favorable exchange rate than in a bank) for sending money. The delivery is free. The hawaladar contacts another hawaladar in the destination country, who then contacts the client's family to receive the money. The whole process is completed within one day, and the money is not actually transferred between the countries. Instead, in this cohesive and trust-based system, one hawaladar borrows on behalf of another, who, in turn, believes that the debt will one day be repaid. Over time, the flow of mutual transactions leads to the offsetting of obligations. If Hawaladars accumulate credit or debit funds, they can repay them through a bank or transport cash or valuables across the border. Hawala operators either do this for a living or run a regular business with Hawala as a small side business. It has been used in both public and private transactions to avoid the dangers and delays of transporting cash (Passas, N., 2005).

3. Medieval Genoa

It is believed that modern financial capitalism originated in the West. It should be noted the importance of combining the interests of the Genoese commercial and political elite in financing urban trade and military spending. Genoa is the birthplace of the great economic model. The Genoese actively developed their family businesses throughout the Mediterranean and sought to gain power in their hometown in order to take an important place in the markets and control goods, that is, to receive money. The national debt of the Republic of Genoa arose in the 12th century, when the state began to sell the rights to certain types of tax revenues. This caused constant disputes between the Genoese oligarchy and led to wars of expansion throughout the Mediterranean. The costs of civil and foreign wars required significant financial resources to support the functioning of the State, and tax revenues were irregular (Epstein, S.A., 2001).

The imbalance between tax revenues and expenses related to commercial ambitions was not easy to eliminate. But a solution was found: special rights to trade or fixed commercial transactions began to be established. Each time, more and more rights were sold to merchants who paid the required amount in advance and then got access to self-collection of taxes. Thus, the seller (the state) received a certain and constant amount of money, and the buyer (the tax collector) received in exchange a flow of an unspecified but predictable amount of money from fees, tariffs and taxes (Epstein, S.A., 2001). The need to reorganize the Genoese public finances led the authorities to reform in 1407, as a result of which a commission was created to convert debt obligations into consolidated debt. This consortium was named *Casa delle camere e dei banchi di San Giorgio* (House of Public Debt and Banks of St. George) (Felloni, G., 1989).

The structure immediately began consolidating a significant part of the public debt within a single institution, converting bonds with yields from 8 to 10% into a single debt, called „St. George“, with dividends of 7%. They reimbursed the creditors for the losses due to these dividends. Those who agreed to reduce the initial taxes created a consortium, the nominal capital of which consisted of old debts of the state.

Consequently, it included the entire accumulated debt, which reached approximately 8,000,000 Genoese lira. St. George's House became the only place where the community could get a loan. Numerous loans were accompanied by the transfer of state revenues to St. George, who opened a loan for a specified amount. Invoices with interest were recorded in the cartularii pagarum ledgers. The investor could demand to withdraw interest at any time. Officials had to have the funds to pay interest to shareholders (Felloni, G., 1989).

The Genoa network of exchange fairs has become an effective tool for managing financial information, as well as transferring precious metals to creditors. This system was based on a time-tested model and was further improved in Geneva, Lyon, Piacenza and Novi. At the end of the XVI – beginning of the XVII century, it reached its heyday. After 1580, almost all international transactions in Europe were concluded in Piacenza at three-month fairs. Piacenza and Novi became the main operating markets, where more and more operators from all European trading markets gathered and the volume of transactions and financial speculation increased.

The Genoa’s St. George stands out among other financial structures that appeared at this time for four reasons (Marsilio, C., 2013):

- The ability to increase the contractual powers of creditors and reduce the cost of financing the administrative apparatus of Genoa;
- The administrators of St. George were able to distinguish a forgivable delay from an unjustified one;
- Specialization in the collection and dissemination of economic information was an additional advantage in tax collection;
- St. George was decades or even centuries ahead of the banking operations that existed at that time.

All innovations in accounting, management and finance originated and developed in St. George and quickly spread to the world of private business. Later, many of the innovations of the Genoese were improved and introduced into international finance by other European financiers.

4. Venetian republic

Venice consistently issued public debt and guaranteed interest payments to external investors. From the middle of the XV to the beginning of the XVI century, incomes were relatively stable, despite the wars with the Ottomans (1464 – 1479 and 1499 – 1502), the Ferrara War (1480 – 1482) and the early Italian Wars (1494 – 1530). From the middle of the XVI to the beginning of the XVII century, the growth was insignificant, although prices increased markedly. The Great epidemy of 1630 led to a reduction in tax revenues, after which a slow economic recovery began. Half a century later, the resources to stimulate a rapid recovery in the level of taxation turned out to be unavailable. The long war for Crete (1645 – 1669) also worsened the situation of the republic. In the early years of the war, the tax burden did not increase much, but the 1650s put a lot of pressure on Venetian subjects (Pezzolo, L., 2013).

The Doge of Venice understood that taxation was a necessity recognized by law and citizens. If the generally accepted limits of the tax amount were exceeded, taxpayers could always challenge the government. In the Republic of Venice, there was no idea that the king should „live by himself“. Security considerations came first, that is, the protection of the state and the Catholic faith. Venice was an outpost of Christianity in the eastern Mediterranean and shared the common ideology of the crusade. Thus, defense spending has acquired the character of a sacred duty. This allowed the transfer of tax obligations from the religious sphere to the secular one: subjects were required to pay taxes to the state as the executor of the divine will (Borelli, G., Lanaro, P., Vecchiato, F., 1982).

It is worth noting that the structure of government revenues changed significantly in the 17th century due to the decline of Venice's commercial role in the international market. The government began to rely on duties on domestic consumption and taxes on trade with mainland Italy. The national debt was a consequence of military spending. The evolution of borrowing depended on the vicissitudes of the war, and this was its continuation financially.

The Venetian government was a conscientious debtor. Interest on loans was paid regularly. But due to conflicts, military-political commitments and unforeseen circumstances, the balance between income and expenses was constantly disrupted. Therefore, it was necessary to raise money through short-term loans. Since the end of the 12th century, the government began to use compulsory loans for citizens of Venice, listed in the estimo, or tax register. The payments were small – 5% per annum before repayment of the principal debt, but profitable for both the state treasury and creditors. In addition, lenders were allowed to trade their loans (Pezzolo, L., 2013).

Venice was one of the most important financial centers of early modern Europe. It probably reached its heyday in the XV and XVI centuries, as its financial institutions served as an example for other European centers. The main purpose of the Venetian financial market was to provide services to merchants. Since the end of the 13th century, local bankers began to keep their clients' deposits and transfer money by simply writing down the amount from one account to another. Due to this, the use of coins has significantly decreased (Pezzolo, L., 2003).

5. International settlements development during XVII century

There are vivid examples of advanced development of financial systems and international settlements in other parts of the world. However, due to the focus of this study on the specifics of contacts in the European region, it would be advisable to limit ourselves to the above examples. The next important stage in the development of the field of international settlements and finance began in the XVIII century. At that time, the international money market was based on a four-sided bill. A bill of exchange was a letter by which one merchant ordered his correspondent in some other city to make a payment on his behalf to another merchant in that remote city (De Roover, R., 2008). Thus, bills of exchange were used to transfer money abroad, while the local currency was used for local payments.

It is possible to give the following illustration of the operation of this tool. An English agent needs to pay off a debt in Amsterdam, and he does not have his own correspondent there. An English agent (payer) buys a bill of exchange from a merchant in London from Dutch correspondents (a bill collector), paying in local currency, British pounds sterling. The bill is issued in a foreign currency at a bank and is payable in Amsterdam. The payer sends the bill by mail to the Recipient in Amsterdam to pay off his debt. The Payee presents the invoice to the Payer for acceptance, and the Payer pays the invoice to the Payee upon expiration of the payment period. During this process, the Bill Collector has a debt to the Payer. As a rule, the Payer and the bill issuer settle accounts and can compensate for the payment of a bill of exchange with claims for other transactions, so from time to time only small amounts have to be repaid in pure form. If the bill was not accepted, or if the accepted bill was not paid, the Payee protested the bill, and the bill issuer was obliged to pay the bill plus the costs of protesting, postage, commissions and brokerage services (Munro, J.H. 2013).

The exchange rate for the bill (future delivery) included two components: a shadow spot exchange rate for the transfer and a shadow interest rate for the loan. This interest rate was determined by the interest rate at the destination center according to the departure center. A fixed-term bill in London issued to Amsterdam is equivalent to an urgent transfer of money from London to Amsterdam at the current exchange rate, followed by the placement of the received capital at interest in Amsterdam. The price of a promissory note in London is determined by the spot rate in Amsterdam and the local interest rate.

6. French Empire

The history of international settlements in France before the beginning of the 20th century includes the study of payment mechanisms and financial settlements between the metropolis and the French colonies. These mechanisms played a key role in maintaining economic activity and stability within the French colonial empire.

- Colonial banks: Local banks supported economic activities and international settlements, performing functions similar to those in the metropolis.
- Postal orders: These were a primary way to transfer funds between the parent country and the colonies, allowing for quick and relatively safe long-distance payments.
- Telegraphic transfers: With the development of telegraphic communication, faster and more reliable ways of transferring funds became available, significantly accelerating the settlement process.
- Trading houses: French trading houses and companies signed contracts with local producers and traders, financing their activities and managing international settlements.
- Currency standards and exchange rates: Fixed exchange rates were used to standardize financial transactions and simplify the settlement process, set by the Bank of France and other financial institutions.

This process could take different times depending on the chosen transfer method and the distance between the metropolis and the colony. There may also have been delays due to technical problems or documentation issues. The Bank of France, founded by Napoleon Bonaparte in 1800, became the first central bank in the world. Its creation was an important step in the development of the French financial system, since up to that point the issue of money and the management of the money supply were carried out by various private banks and financial institutions. The main task of the Bank of France was to ensure the stability of the national currency, control over money circulation and manage gold and foreign exchange reserves. These functions were enshrined in the bank's charter, which was adopted in 1803 (Bignon, V., Andreau, M., 2018).

Since its foundation, the Bank of France has played a key role in the development of the French financial system. It was actively involved in international affairs, especially in the context of France's vast colonial empire. The Bank provided international settlements between the metropolis and the colonies, supported economic activity in the colonies, controlled their financial stability and managed gold and foreign exchange reserves. (Caprio, G., 2012). This was especially important for Algeria, which was one of the largest and most strategically important colonies of France.

Economist Jean-Claude Trichet, who served as president of the European Central Bank, noted that the experience of the Bank of France in managing the financial system and ensuring the stability of the national currency is an important lesson for modern central banks. He stressed that the Bank of France had played a key role in the industrialization of France and the development of its colonial empire.[1] Its functions

[1] Keynote speech by Mr Jean-Claude Trichet, Governor of the Banque de France, at the European Financial Markets Convention (EFMC 2001), Paris, 15 June 2001. // URL: https://www.bis.org/review/r010615a.pdf

included the issue of money, regulation of monetary circulation, management of gold and foreign exchange reserves and support of the financial system. These functions allowed the bank to ensure the stability of the national currency and support economic growth, which contributed to the development of France as the world's leading economic power. (Bignon, V., Andreau, M., 2018).

7. Emergence of financial clearing

In the context of the above examples of England and France in the period of the 17th and 19th centuries. Of particular interest is the genesis of clearing tools, as one of the important means of carrying out both domestic and international settlements. Clearing systems play an important role in the history of international settlements, providing simplification and acceleration of financial transactions between different countries and financial institutions. The first clearing systems arose in conditions of a shortage of real means of payment and the need to simplify settlements between banks and trading partners.

The origin of clearing dates back to the XVIII century in England. With the development of the banking system, the volume of payments between banks has increased significantly. To simplify calculations, the first clearing house was established in London in 1773. This office allowed banks to make offsets, which significantly accelerated and simplified financial transactions. By 1820, all British banks had merged into a single clearing network, which contributed to the further development of the country's financial system (Manning, M., Erlend, N., Jochen, Schanz, 2009).

In France, the first clearing systems began to develop later. In 1872, the first clearing house was established in Paris, which allowed banks and trading houses to make offsets and simplify settlements. This system has contributed to the development of international trade and financial transactions, ensuring the reliability and security of transactions. International clearing systems began to develop in the 19th century with the expansion of international economic relations.

The first clearing systems played a key role in the development of international settlements, providing simplification and acceleration of financial transactions. They allowed banks and trading partners to make offsets, which significantly reduced risks and increased the reliability of transactions. The development of clearing systems in England and France laid the foundation for the further development of international financial systems and contributed to the integration of world economies.

Conclusion

The development of finance at the beginning of the new era was closely linked to the strengthening of the merchant community, which was transnational and multicultural. In the XVIII century, monetary geography consisted of two parts: the old Mediterranean system around Genoa and Livorno and the new North Atlantic system with

Amsterdam, London and Paris. Washington was also an important hub in this system. The key role of Amsterdam, London and Paris ensured the connection between the two systems. Interest rates in the main markets – Amsterdam, London and Paris – were similar, but the average rates differed due to the different degree of liquidity in each of the national economies

The history of international settlements is a complex and multifaceted process reflecting the evolution of economic and financial systems of various civilizations. In ancient Rome, international settlements were in their infancy and did not represent a full-fledged system. However, with the development of trade and the economy, Italian city-states such as Genoa and Venice began to form more complex financial instruments, although their scale was still far from modern standards.

The Ottoman Empire, with its Islamic roots, made a significant contribution to the institutionalization of international settlements. One of the notable tools that entered financial practice during this period was hawala, a money transfer system based on trust and a network of agents that allowed financial transactions to be carried out without physically moving money. Hawala provided a high degree of security and reliability, which contributed to the development of trade and financial transactions in the Islamic world.

In France, the development of the financial system was significantly influenced by the monarchy, and later by the reforms of the French Revolution and the Napoleonic era. The establishment of the Bank of France in 1800 played a key role in stabilizing the French financial system and facilitating international trade.

Analyzing the historical development of international settlements, several key patterns can be identified. First, the evolution of international settlements is closely linked to the development of trade and economic systems. Secondly, the institutionalization of financial instruments, such as hawala in the Ottoman Empire or banking systems in France and England, played a key role in ensuring the reliability and security of international settlements. Thirdly, political and social changes, such as the reforms of the French Revolution or the Industrial Revolution in England, had a significant impact on the development of financial systems and international settlements.

Thus, the dynamics of the development of international settlements shows the gradual complication and institutionalization of this sphere, from simple trading operations in ancient Rome to complex financial systems in France and England. This process reflects not only economic development, but also cultural and political changes that have taken place in various regions of the world. Understanding these patterns allows for a deeper understanding of historical processes and their impact on the modern economy.

Acknowledgement:

The present paper is financed within the implementation of project NI-11-2023 of the UNWE, titled „Payments in international trade – trends and perspectives."

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THE MEMBERSHIP OF BULGARIA IN THE EUROPEAN UNION: SEVENTEEN YEARS LATER

VOLUME II

Papers presented in English language

October 2024, UNWE – Sofia

Collective

Prepress: Teodora Markova

Printed 25.04.2025. Format 16/70/100

ISSN 2815-2727

UNWE PRINTING HOUSE