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## GLOBAL ECONOMIC MECHANISMS AND SZEKLERLAND<sup>1</sup>

*This paper identifies the opportunities for development and take-off points by taking into account the operation, processes and basic principles of the global economy. The current economic situation of the region mentioned will be detailed using macroeconomic indicators such as GDP, foreign direct investment, the HDI index and infrastructural networks. It becomes evident that the focus of this paper is a semi-periphery region of a semi-periphery country, which, in addition to the stagnation of the current situation, is inching towards the periphery. It is essential to explore the main routes through which the future development of the region might be reoriented towards a modern and competitive economy in the current global environment. It is therefore not specific solutions, but development paths that this paper outlines. The obvious handicaps are, however, coupled with unique opportunities, such as natural resources, biodiversity, traditions and a strategic geographic location.*

*The free flow of labour, goods and capital has become a cross-border and intertwined reality, and significantly influence the economies of all countries and regions. The migration of capital and the division of labour it results in assign roles to states and global regions. In this capacity, they connect to networks whose micro-interactions outline the entirety of the global economic landscape. The Szeklerland is not an administratively recognised region; it is surrounded by psychological borders, and represents a cultural, ethnic, historical entity based on tradition. Although the push for its recognition is still ongoing, as evidenced by the efforts of representative bodies such as the Minority SafePack initiative for the protection of minorities, global processes and laws still apply to it, influencing both its present and expected future path. Despite the unfavourable historical background that has left its mark on its economic state to a significant extent, thus also shaping the ways in which it attained its current level of development, the region examined possesses significant potential, and with the appropriate measures, the possible future evolution of its economy may give cause for optimism. This, however, may only be accomplished if there is an appropriate infrastructural network*

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*underpinning the region, with the aim of ensuring the rapid movement of products, services, high volumes of data, information, the workforce and money. Digitisation plays an important part in this process, yet at the same time, technology transfer and innovation are both indispensable for increasing efficiency.*

## I. THE LAWS GOVERNING THE RELATIONSHIP BETWEEN CORE AND PERIPHERY

The fundamental milestone of the theory is the axial division of labour, which distributes production between the core and the periphery. In the core, we may find the states with the strongest economies, such as the USA, the EU10 – Europe's ten most developed countries – and Japan, and on the opposite end or periphery, the most vulnerable states, such as poor African, Asian and Latin-American countries. There is also a transitional state that exists between the two poles, where Central and Eastern Europe also belongs. When a leading industrial sector appears in the core, resulting in the formation of quasi-monopolies<sup>2</sup>, it is considered expansion, and the accumulation of capital begins. In this case, employment rates rise, wages increase, profit margins are typically vast, and general prosperity can be observed. Over time, however, as more and more enterprises join the quasi-monopoly space, this environment becomes more and more diluted, leading to an increasingly competitive market. According to *the traditional view of the theory*, this competitive state results in overproduction, unsold products accumulate, and the profit margin begins a free-fall. At this point, the growth curve of the economy inverts, and we enter recession (Wallerstein, 2010). Since companies are forced to reduce their overhead, so that the gap between revenue and production costs does not shrink further, they turn their attention to cheaper labour, which in turn activates centrifugal forces, and the production process begins to move from the core towards the periphery, accomplished through investments. The reason for this is the attempt by companies to minimise their costs, where the desired result is to maximise profit. We distinguish between two types of investments: portfolio investment<sup>3</sup> and long-term FDI<sup>4</sup> investments (Gilpin, 2004). Usually, the primary beneficiaries are half-periphery countries, later drifting further on into periphery countries. Owing to this process, wages begin to slowly decrease in the core as well, and the demand for the products, which until now was insufficient due to overproduction, plunges

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<sup>2</sup> A virtual monopoly, there are only a few producers present with regard to the manufacture of a leading product.

<sup>3</sup> Quick opportunity for generating cash.

<sup>4</sup> Foreign Direct Investment

further because of the depressed wages. One of the proven methods in these situations is to raise wages in the core, which restores the level of demand and makes it possible to market new leading products. Providing this is accomplished, the recession curve reorients itself and new expansion may take place. This can be illustrated in a coordinate system where phase A is expansion and phase B is stagnation or recession. Phase A and the subsequent phase B is called a Kondratiev cycle. This is the systole-diastole of the world economy. Nevertheless, at present a visible change has emerged due to the nature of globalisation that capitalism entails, since *according to the modern view*, the Kondratiev cycle has caused the spatial divergence and temporal convergence of the two (extensive and intensive) phases. Which is to say that innovations in the centre are almost continuous (intensive phase), and shortly after the new technology is introduced, they expand and settle towards regions with lower wage levels (extensive phase), covering increasingly larger areas. All this serves to further cement the roles states are relegated to by the core-periphery paradigm. The production bases of periphery countries are underdeveloped, which is why they find themselves stuck in the extensive phase of the return-on-capital cycle (Artner, 2014). All of this means that research and development (R&D) overwhelmingly takes place in countries with a stake in industrial production (these are the core countries), while countries with cheaper labour and a lower degree of development (semi-periphery and periphery) are where production takes place, albeit using capital from the core. This results in a situation where a significant portion of the profit generated in the periphery will not remain at the place of production, but migrate to the core, where it will be used for carrying out further development and innovation, thus preserving the disparity in wages, and therefore, living standards between the two sides. China's situation is unique from this standpoint, but we must not forget that the average quality of life in this particular country lags far behind the living standards encountered in the core countries; at the same time, we are talking about a communist state, although the analysis that would entail falls outside the scope of this paper.

The concept called 'extended monopoly' – also known as a "generalised" monopoly – is closely correlated with the notion represented by the core-periphery relationship. In the words of Samir Amin, we live in the age of extended monopolies, the main feature of which is that accumulation reaches global levels, the inequality between core and periphery continually intensifies, and the societies of Southern countries find themselves subject to the processes of lumpenisation (Amin, 1992). In Amin's view, the convergence of the periphery is only possible through the severing of ties with global capitalism (delinking), and accordingly, he refuses the development strategies established by the rules of globalisation (Artner, 2018).

In order to understand the operation of the world economy as well as to shed light on the causal relationships, it is essential that a broader time frame should be studied, which would be the notion of the historical time scale, the *longue durée* (Wallerstein, 2010). The establishment of capitalism can be divided into different historical stages; in Szigeti Péter's view, the period leading up to World War I was defined by an era of free competition, followed by organised capitalism (encompassing monopoly capitalism and Keynes's welfare state), and from the '70s on, we have been living in the age of global capitalism (Szigeti, 1991). Artner Annamária, with slight alteration, calls the period from the end of World War I until today organised capitalism, dividing it into three stages: monopoly capitalism (ending in the 1929-33 crisis), state monopoly capitalism, and the period that began with the crisis in the '70s, which she calls, adopting an expression by Rozsnyai Ervin (Rozsnyai, 2002), "transnational monopoly capitalism" (Artner, 2017). The basic principles of the relationship between core and periphery explored in this paper are, for the most part, characteristic of the period which started in the '70s and still shapes our present.

Therefore, in my view, based on the interpretation of the principles underlying the relationship between core and periphery (with a traditional and a modern perspective representative of the current era having been presented above), the country/region capable of achieving breakthrough development and guaranteeing economic security is one which is based on industrial production. This means that they have a stake in industry, and carries out production either in its own territory or a different geographical area, but using its own capital nonetheless. Industrial production represents the tangible and palpable added value, which constitutes the basis for all further values, around which services are also, for the most part, organised. Consequently, all values created in the economy, whether done indirectly or directly, can be traced back to industrial production. Innovation and R&D play an immense part when it comes to maintaining and increasing production, an aspect that will be detailed later on in the paper. The correctness of the logical conclusion is also supported by statistical data. I analysed the correlations between the existence of industry, the nominal GDP (Gross Domestic Product) and wages in the wider environment of the Szeklerland, namely, Transylvania.

Transylvania's industrial companies, nominal GDP and monthly average net income broken down by regions (Table 1):

	Number of industrial companies	Nominal GDP per capita (in euros)	Monthly average net income (in lei)
Szeklerland	1884	6414	1987
Central Transylvania	5516	9986	2622
Partium	4200	7249	2051
Southern Transylvania	6015	9981	2318
Banat	4612	10760	2374
Northern Transylvania	2580	7036	1993.5

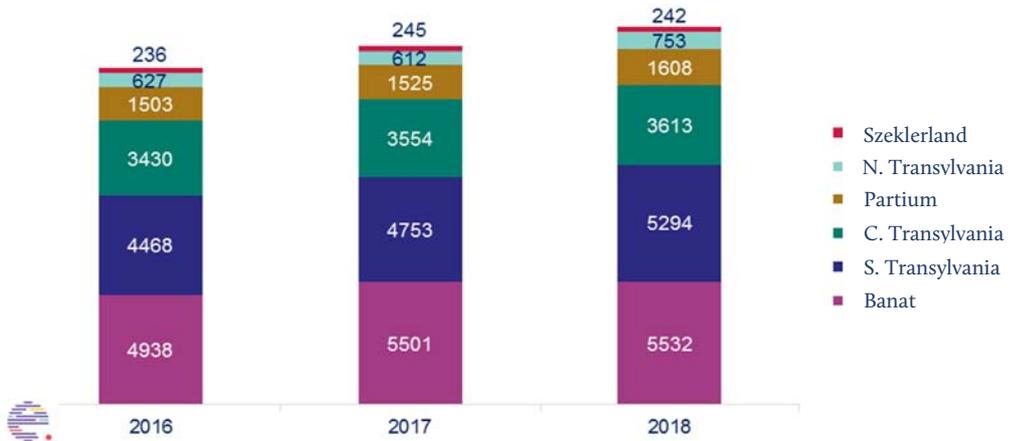
(Compiled by the author, data source: Erdélystat.ro, data from 2017)

The data above clearly reflect the correlations between the indicators; the more industrial regions boast higher GDP per capita as well as higher average net income. The only exception is the relationship between Southern Transylvania and Banat, the reason for this being that data for the Southern Transylvania region also takes into account the relatively undeveloped and less-industrialised Hunedoara county, which significantly lowers the average; were we to exclude it, then the monthly average net income for Southern Transylvania would be 2425.3 lei. The data also makes it apparent that since Szeklerland is the least industrialised area in Transylvania, the macroeconomic indicators are the least favourable there, which also correlates with living standards.

Based on the conclusion drawn from the theory analysed and the statistical data, it can be said that one of the take-off points for Szeklerland, though it has been traditionally a region of agriculture and livestock production, would be precisely the conscious and consistent of industry. It is true that the most ground-breaking achievements are ensured through production using equity, although we must take into account that the region analysed lags considerably behind, while it is also a territory inside a unitary state. As a corollary to all of the above, development using only equity is not a realistic proposition; thus, a two-pronged strategy would be the most appropriate for the region. On the one hand, the region should be made available and attractive for investments of foreign working capital as well as capital coming from other regions, and simultaneously, local industrial developments based on endogenous factors need to be initiated in well-defined sectors.

Figure 1 (source: [statisztikak.erdelystat.ro](http://statisztikak.erdelystat.ro))

Foreign working capital (FDI) stock in Transylvanian regions between 2016-2018 (cumulated value, millions of euros)



Developments based on endogenous factors can be sectors directly or indirectly related to the traditions and way of life predominating in the local population, such as the food, textile or extractive industry. Prominent tools in executing these would be accessing direct grants offered by the European Union and the state, identifying domestic and foreign credit facilities, innovation and R&D activities, industrial parks and<sup>5</sup> business incubators<sup>6</sup>, as well as big data and digitalisation as well. Over the course of this paper, we will touch upon some of these, but the full and detailed analysis of and scientific data-based support for each of these could well form the object of a separate study; the current paper, however, merely attempts to set out development paths.

## 2. INTERCONNECTEDNESS AND SUPPLY CHAINS

The establishment of extensive links between countries, regions and continents is not merely one of several possible options; instead, it has become a vital necessity in the present. The fostering of relationships is ensured by infrastructural networks, represented by motorways, railways, bridges, tunnels,

<sup>5</sup> an area hosting various companies (possibly operating in different sectors), equipped with the appropriate infrastructure; occasionally, the industrial park may even provide services to the companies operating there, or may be engaged in micro-regional economic development efforts (Szilágyi, 2005)

<sup>6</sup> they usually provide small and medium-sized enterprises with basic services (bookkeeping, financial administration, marketing, logistics, accessing grants and loans, development and investment consulting), but may also make available the use of physical infrastructure and the establishment of business relationships

airports, pipelines, electric grids and internet cables. This system of global shipping, communication and energy networks enables and facilitates the creation of a flow of people, goods, data and capital. In this coalesced, ever-expanding and ever more complex network of relationships, cities will become more important than states from an economic standpoint, and commercial chains will be more significant indicators than the army, while the task assigned to state armies will be the defence, next to, or even instead of state borders, of commercial chains. The infrastructure comprising the framework and the circulatory system of interconnectedness is the driving force behind the global economy; its development is bolstered through contributions in the order of several trillions of dollars. This is currently the best investment; from a historical perspective, in the United States of America (USA), according to Khanna, \$1 invested turned a profit of \$2, which means that they attained an income twice as great as what they had spent through investments (Khanna, 2017). The gap between infrastructural demand and supply is immense; at the moment, investments command global expenditures of more than \$3 trillion annually (comparatively, defence spending amounts to \$1.75 trillion), and they are predicted to amount to \$9 trillion by 2025. We live in the revolutionary age of global interconnectedness. The 'infrastructural matrix' represents 64 million km of roads, 2 million km of pipelines, 1.2 million km of railways, 750 thousand km of submarine communication cables, whereas the entirety of international borders in the world adds up to merely 250 thousand km. Humanity is expected to construct more infrastructure in the next 40 years than it has in the past 4000. All this is beginning to resemble the networks found in integrated circuits; the world is starting to look like the internet (Khanna, 2017).

In the reality of increasing interconnectedness, we are inching ever closer to the state where all demand meets all supply; where everything or everyone is able to physically or virtually go anywhere. According to famed physicist Michio Kaku, we are headed towards such a 'perfect capitalism', namely, towards the world of the 'supply chain' (Kaku, 2012). The process of the supply chain extends from extraction through production activities to the sale of the finished product. This is, in fact, part of the value chain, which, alongside interior logistics, manufacture and marketing also comprises corporate infrastructure, human resources management, research and development (R&D) and investments as well (Illés, 2003). Supply chains are systems of transaction, with the links appearing as 'micro-interactions'; these are the paths of the world where everyone and everything is in motion. The cities, regions and states left out of supply chains lose their connection with the global economy, and thus end up minimising their chances of development and survival. At the same time, the world of supply chains gives rise to completely new forms of settlements. This novel approach is what brings industrial cities into existence, which are the 'pop-up' cities of the supply chain

world, and it is typical for these to be built around a central company or industry. Special Economic Zones (SEZs) function according to their own regulations, which attracts investors, but states are also greatly reliant on them, even though they are significantly deprived of their sovereignty. SEZs are districts and towns set up with the aim of attracting investors into special industrial groups<sup>7</sup>, and accordingly, all activities in these zones are primarily centred around foreign trade and foreign investments. They represent enormous investments which create employment, provide new technologies and expertise, and efficiently attach to allied cities and economic powers. The supply chain system has supplanted all superpowers; they are now competing in a supply chain war, and whoever rules over these, rules over the world. Everything is connected to everything, developing together and mutually reliant on each other, and hyper-globalisation has been attained; yet this is not to be confused with internationalisation<sup>8</sup>. The globalised magnitude of a territory may be determined by measuring interconnectedness; at the same time, this value also indicates its capacity for exerting influence (Khanna, 2017).

Since they are unable to defeat each other, major powers engage not in warfare, but in a tug-of-war. Nevertheless, this situation gives rise to dependencies that curtail armed conflict between major powers, and the manner in which they relate to each other is determined along the lines of economic interests. The European Union is already the largest investor in the United States, and this partnership may further bolster the \$3 billion daily trade, eventually accomplishing a genuine economic fusion between the two continents. Yet another outstanding example of economic coalescence is the Trans-Pacific Partnership (TPP) spanning the Pacific Ocean (Khanna, 2017). In this context, it is important to point out an agreement of historical significance, namely, the trade deal between the EU and China, negotiations for which were concluded by the parties on 30 December 2020. A key role in entering into the agreement was played by Germany, represented by Angela Merkel. This will allow the parties to facilitate market access for each other's companies. An important step forward for the EU is that its companies will be able to enter certain sectors in China's financial services which have so far been considerably closed-off, its private health care system, its real estate market, its construction market and its freight forwarding services market. Furthermore, the agreement would bring an end to the practice in certain manufacturing sectors where foreign companies may only operate in China in

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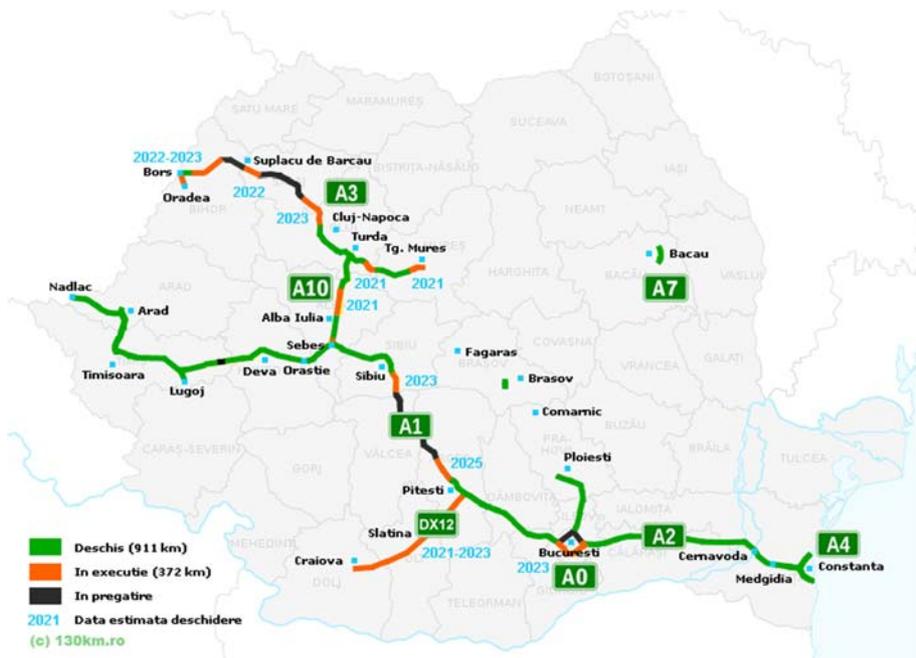
<sup>7</sup> also called clusters, they constitute networks, groupings or aggregates operating in the same sector

<sup>8</sup> Globalisation represents the capacity for creating worldwide interactions, while internationalisation may vary greatly depending on the industry and the economic period.

joint ventures established with local partners, and would also offer assurances against forced technology transfer (Bátor, 2021). The significance of this is further increased by the fact that construction on Nord Stream 2, which will tie German industry and Russian energy even closer together, is nearing completion. All of this can result in geopolitical tectonic shifts, and might lead to significant changes in the currently prevailing balance of power (Ablonczy, 2021). With this step, the EU, traditionally supportive of America, has opened a new chapter in economic policy, which clearly shows that the interests determined by markets and supply chains override even the rules of historic cooperation. When it comes to the three greatest economic powers in the world – America, China and Europe –, an interesting amalgamation of relationships can be observed in the interwoven network of conflict, collaboration and competition. The functional circuits of the supply chains make up the circulatory system of the global economy, where one may witness the great abundance of circulation and transactions taking place. Still, the world of supply chains may only be approached in positive terms providing it takes into account and shows respect for people's interests and dignity, as well as the basic principles of nature conservation and sustainability. The future will decide whether it is an open world made up of a commingling of cultures or one of Orwellian mega-empires that emerges in the end; perhaps it will be an open-minded one which nevertheless pays heed to its national, cultural and religious roots, traditions and identity.

With regard to Szeklerland, it can therefore be concluded that alongside the industrial development outlined, it is integration on a global scale that represents the next pillar of its realistic economic development. This means infrastructural developments mainly in the field of transport – roads, motorways, railways, airports – through which interconnectedness might be accomplished not only within the region, but with other domestic and global economic regions as well. Nevertheless, a prodigious advantage that Szeklerland holds lies in its geographical location, since it is situated just about in the middle of the country; moreover, this position can also be considered beneficial from a European standpoint. This, in turn, would open the possibility of assuming a role as a national, and in the long term, regional logistical distribution centre for goods.

Let us examine the current situation of transport infrastructure in the region analysed with regard to motorways, airports and railways. Romania's current motorway network (Figure 2):



(Source: <http://www.130km.ro/harta.html>)

It is clear that this network completely bypasses the counties of Harghita and Covasna, and even Mureş County only benefits from a portion of motorway A3 spanning approximately 40 km. What is even greater cause for concern, however, is the fact that the counties mentioned have not even been included in the planning stages for motorways. The map tells us that the Southern Transylvanian region is in the best position, Northern Transylvania is catching up, but the sections of motorway still only appear as being under construction or in the planning stages.

With regard to airports, the following locations have airports appropriate for passenger and freight transport in the country (Figure 3):



(Source: <https://airlinetravel.ro/aeroporturi-din-romania>)

Counties Harghita and Covasna clearly lack airports suited to transporting people and goods, which is partly mitigated by the “Aeroportul Internațional Transilvania” airport found in Târgu Mureș.

As to rail infrastructure, Romania’s railway network currently comprises nine main lines, which constitute the backbone of railway transport, and to which the secondary lines connect. In Transylvania, these main lines pass through the following settlements, which are also the most important railway nodes: Brașov, Sibiu, Arad, Curtici, Sighișoara, Teiuș, Războieni, Cluj-Napoca, Oradea, Siculeni, Deda, Dej, Baia Mare, Satu Mare (Romanian Ministry of Transport and Infrastructure, 2009). Regarding Szeklerland, there is only one railway node of any significance, represented by Siculeni, from which it follows that the region is avoided by the main railway lines as well.

The EU Cohesion Fund opens up new opportunities in the development of transport infrastructure in the 2021-2027 period, supporting to a great extent the creation of roads and railway networks, primarily. The EU funds may be accessed through operational programmes; the fund designated for supporting transport infrastructure is available for developments through the Operational Programme for Transport (Programul Operațional Transport), which is part of the Ministry of Investments and European Projects (Ministerul Investițiilor și Proiectelor Europene).

The data above point to the fact that the infrastructure in Szeklerland lags significantly behind not only compared to Europe, but even to the average situation found in Romania. But why is it important to develop infrastructure, and thereby, to achieve interconnectedness? Infrastructural investments have a stimulating effect on the economy. They significantly contribute to the increase of GDP in the region, but they also generate employment and raise income, which has the effect of increasing demand on the market, and this positive effect spills over into other economic sectors as well. At the same time, it also boosts certain services, such as design companies, topographers, professionals carrying out impact assessments, consultants, proposal writers and so on. But there are more far-reaching considerations. Transport infrastructure makes a region attractive, and it furthermore facilitates the movement of goods, capital and labour both within the region as well as to the surrounding regions. This, however, is still not sufficient to achieve a break-through development that is sustainable. The answer lies in global integration. The interconnectedness provided by infrastructural networks create opportunities, yet economic development today requires more; namely, to break out of the local and native model of economic organisation. One of the features of globalism is a shift from separate companies engaged in competition with each other to entire supply chains doing the same, covering ever larger geographical areas, while the regions left out (be they countries or cities) are no longer able to effectively compete on their own. The same applies to Szeklerland; its industrial sectors must become part of a supply chain or another, which would also ensure greater market share. This is not exclusive to global supply chains; especially at the beginning, connecting to smaller Transylvanian or national chains, and, over time, even to those in the Balkans or the V4 region in the extractive, manufacturing and food industries, would suffice. The emphasis is on breaking out of the deeply entrenched local mindset. Local brands exclusively linked to the region can be identified mainly in the food industry, such as Góbé products, Székely Falat or even Csíki Sör. These, however, since they mostly remain stuck at a local level (perhaps with the exception of Csíki Sör, which is trying to break into the Hungarian market as well), achieve no significant impact, and are unable to become flagship industrial sectors in the region.

As a result, Szeklerland, were it to link with national or even European supply chains in the field of extraction (lumber and mineral resources), cultivation (vegetables and fruit), livestock production (pig and poultry), manufacturing (food and textile), would secure its future, lend weight to its advocacy and increase its market coverage, and at the same time, by leveraging its interconnectedness and geographical advantages, might create the opportunity to establish a national – and, over time, even regional – logistical centre.

In order for a region to achieve progress through its industry and by becoming integrated into the global economy, however, it must also take big data, knowledge and innovation into account as indispensable, development-generating elements in the great engine of the global economy. In the following, we will succinctly present and analyse the importance of these aspects.

### 3. BIG DATA, KNOWLEDGE AND INNOVATION

The *collection and use of large amounts of information (big data)* has become the motive force behind the global environment, defining both economic life as well as the day-to-day operation of institutions and individuals. This is why big data<sup>9</sup> and digitisation, the former becoming possible to a great extent due to the latter, have become indispensable elements, or even vital necessities in economic life. The virtual space provided by the internet seems to have become host to the development of the networked digital society. We live in an age ruled over by social media sites, which, beside the rapid spread of news and the establishment and cultivation of relationships, collect data; data which they might even use to influence our decisions and determine our way of life. (Forgács, 2015). Furthermore, the unfathomable progress of digitisation has also changed the previously familiar structure of how we perform our work. In the world of computer development and thinking robots, the formerly recognisable image of the labour market will become significantly reorganised, since some jobs will be phased out, only to be replaced by others. Throughout this process, the only states and regions capable of staying in competition, or staying alive at all, will be the ones which recognise the requirements of high-tech flagship industries. Achieving this is conditioned by the establishment of a knowledge-based society; continually raising the level of training is an essential requirement for the success of 'knowledge-intensive' sectors, where India serves as a guiding example (Forgács, 2015). Big data influences our life to a significant extent; however, this has both positive as well as negative aspects. It is undeniable that it facilitates our everyday life in several fields; we need only consider how the Waze navigation application makes life easier for many travellers by the immense amounts of data collected and transmitted among its users. The production costs for certain IT products can often be high, but the marginal costs of reproduction are almost close to nil. This creates tremendous opportunities for companies operating in this field. Yet another positive example is the method of predictive analysis, owing to which increasingly more companies are able to reduce their costs by only replacing parts in their used equipment and vehicles when these fully wear out. Processing this

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<sup>9</sup> High volumes of information

abundance of data, however, represents an opportunity not only for companies, but may also serve public interest. The potential in data can also be harnessed effectively by financial supervisory authorities, and it also significantly aids investigative efforts. However, systems employing high volumes of data do, in many cases, differ significantly from established ways of thinking, because they are not concerned with causality, but content themselves with pointing out relationships and correlations, since based on these, they can predict the likelihood of certain changes taking place (Forgács, 2015). This world of data collection, processing and interpretation enables us to speak about the appearance of informational<sup>10</sup> and knowledge-based societies<sup>11</sup>. From this perspective, the main resource of the economy is information and knowledge. It can already be seen in the present, but it will hold doubly true in the future that the cities, regions and countries to assume leading roles will be the ones who first incorporate this new economic resource (information) into their economic systems, and most of their workforce will find employment in scientific research and, respectively, in higher education. Throughout learning, we gain active knowledge, namely, skills or competence, which becomes marketable wherever there is demand for it on the market, and thus is information turned into a material resource, namely, capital. Information and Communication Technologies (ICT) are gradually making an appearance in public administration as well, which, in time, will require structural reorganisation on the part of these bodies (Tózsza, 2008).

With a view towards the future, we may state that data will become the new raw material of the economy. If we handle them well, then we may achieve scientific breakthroughs and reveal new sources of economic values. Going forward, the role of information will become more pronounced, while that of raw materials will likely decrease. For companies, data, information, new technologies, technical solutions and production processes will become more important than tangible raw materials, machinery and equipment. Data represents a new input which might be equivalent to the workforce and capital. According to one of Microsoft's foremost experts, Craig Mundie, the data-based economy is about to be born (Csizmadia, 2016).

We have witnessed a shift in economic structure over the recent period; after the industrial revolution, it is services that have come to the forefront, and with the advent of the digital as well as the information revolution, the value added by

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<sup>10</sup> From an economics perspective, this is the economics of knowledge according to which value is created by capitalising on intellect; in light of this, the generation, use and handling of information is an important economic, political and cultural activity.

<sup>11</sup> It is correlated with the information society, but here, emphasis is not only placed on raw information, but mainly on the knowledge derived from processing and interpreting said data.

human resources and by *knowledge* has become the driving force behind economic growth and development. In Csíkszentmihályi Mihály's view, however, another important element alongside these also bears mention, and namely, creativity<sup>12</sup>, which significantly amplifies the usefulness and value of knowledge. Knowledge, *innovation* and creativity signify, demonstrably and at a global level, a growth factor in certain countries and regions. Including these in education and research and development (R&D)<sup>13</sup> alongside technological development results in an ever-greater contribution on the part of cultural and creative sectors<sup>14</sup> to GDP (Gross Domestic Product). Knowledge, innovation and creativity can be made fruitful not only in technological sectors (though their significance is undisputed), since culture may also become a decisive part of economy. A new and dynamically developing flagship industry might arise in the economic space, providing we recognise the potential inherent in the creative cultural service industry. Thereby, the exploitation of cultural heritage and the expansion of associated industries may be conceived of as part of an economic strategy which strengthens competitiveness. The cultural and creative industries have been the best-performing sectors in Europe in recent years, which is proof of the potential prospects inherent in them (according to data published at the UNCTAD conference). At the same time, their capacity for the generation and retention of employment should also be highlighted; they employ more than 12 million people, which represents 7.5% of the Union workforce (two and a half times as many people than automotive manufacturers and five times as many as the chemical industry) (Europapont, 2016). The data published by the United Nations Conference on Trade and Development (UNCTAD) in their report support the fact that cultural and creative activities have become flagship industries in several countries, their export value reaching 624 billion dollars in 2011 (Csizmadia, 2016). Tourism in Szeklerland might become a flagship industry in the region if it manages to go beyond the simplistic model of only providing accommodation and establishes contact with the cultural and creative industries. In the present approach, this would entail combining elements from museums, libraries, exhibitions, festivals, celebrations, theatre, dance, film, radio, literature, press, other publications, digital spaces, architecture, fashion, painting, sculpture,

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<sup>12</sup> Creativity means a new idea or concept; innovation happens when this idea is carried out and used in practice, such as new technology, new products, new manufacturing methods and so on. Knowledge represents the know-how and skill used to solve a certain issue.

<sup>13</sup> regular activity resulting in an expanded body of knowledge

<sup>14</sup> these include: cultural spaces and means of expression (museums, libraries, festivals, celebrations), music, theatre, dance, film, radio, software and video game development, architecture, fashion, literature, the press, painting, sculpture and photography.

photography and antiquity, and including them in publishing and promoting the cultural and natural treasures of the region.

As a result of the digital and information revolution, there has been an exponential increase in the number of start-up companies operating in the digital sphere, and the competition among them precipitates the introduction and penetration of further innovations. Csizmadia Norbert points to the view taken by Josh Lerner (Harvard Business School), according to whom digital products are now so advanced and available that they have become capable of being combined and recombined, which is also called 'combinatorial innovation', and these are used by start-ups to solve new issues (Csizmadia, 2016). Several advanced countries in the world have a start-up community (a start-up ecosystem), start-up schools (accelerators) and co-working community offices, which enable the possibility of creating several hundreds of new jobs. Ayesha Khanna and Paragh Khanna have also called attention to the significance of innovation by contending that innovation has a greater effect on the course a nation's future takes than its military might or the size of its GDP (Khanna P- Khanna A., 2012). This is because technology has become a prominent part of people's physical and societal life, and therefore it is impossible for them to be dismissed as driving forces when carrying out policy design for various sectors of education, health and security (Csizmadia, 2016).

A few characteristics of global innovation: today, approximately 80% of the value of products consists of intellectual capital; the effect of the real economy on scientific research is increasing; interdisciplinary projects are becoming more widespread; and the emergence of flexible small and medium-sized enterprises in the field of innovation has become more frequent. R&D spending greatly increases the economic performance of a country, and it also guarantee security in times of crisis. Germany increased its R&D expenditure by 10% following the 2008 crisis, while China followed up this period with investing \$1500 billion mainly in environment-friendly and IT technologies, and in both cases, these investments have secured market leader status for them in the machine tool industry and in the IT sector (Csizmadia, 2016). Scientific and technological parks are brought to life by a three-way collaboration between companies, R&D institutes and universities, who are then joined by financial organisations as well. Their potential performance and competitiveness depend on whether collective learning and, respectively, a culture of innovation emerges in their region. It is characteristic of the 21<sup>st</sup> century that global competition is taking place among new innovation centres; the legendary Silicon Valley is no longer alone. The creation of great

technology, innovation and research parks<sup>15</sup> prove the significance of innovation worldwide (Csizmadia, 2016). Countries and regions are only able to follow a path of development and security if they understand the importance of knowledge, innovation and creativity.

The three development-generating elements are in direct contact with the human factor. They represent intellectual capital, and they only appear and become usable providing the leaders of a region and the members of a society comprehend their significance and become open to them, as well as learn how to use them to attain the goals desired. It follows that learning, planned consciously and methodically and lasting from the earliest age well into adulthood provides the most important basis and fertile ground. Provided a generation trained according to such a scheme were to grow up and be retained in their native area or recalled following their studies, the result would make itself felt in economic life in both the medium and long term. Examining the Human Development Index (HDI) becomes warranted in this issue; this is a complex indicator consisting of three components: the expected lifespan at birth, the educational component and the GDP per capita. The components for lifespan and education are used for measuring societal convergence (Benedek, 2016). The indicator is divided during analysis, and in many cases its components are analysed separately. The GDP has already been presented above in this paper, and only requires the further addition of the fact that once we pass beyond the geographical borders of Transylvania, the counties in the Moldova region perform even worse than what can be found in the data from Szeklerland. For instance, the nominal GDP per capita value for Vaslui County is 4336 euros, for Suceava County, 5460 euros, Galați County, 6251 euros, Vrancea, 5891 euros, Teleorman, 5354 euros and so on. (Erdelystat, 2017). Comparing this to the data representing the average in Szeklerland, which is 6414 euros, as well as the data presented in the table above, we can contend that Szeklerland's status within the country is that of a half-periphery region. On the other hand, the situation in Szeklerland is considerably better once we supplement this analysis with social (education and health) indicators, and the differences also become smaller between the capital and the rest of the country (Benedek, 2016).

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<sup>15</sup> For example, the Boston Innovation District, Silicon Valley, Daedeok Innopolis and so on.

### HDI categories in Romania according to counties in 2011 (Figure 4):



(source: Benedek, 2016)

The opportunities for learning, further training, retraining and development of skills are provided, as in the case of transport infrastructure development, by the EU funds for the 2021-2027 period. In Romania, these funds can be accessed via the Operational Programme for Employment and Training (Programul Operațional Educație și Ocupare) to support institutions (including companies).

## 4. CONCLUSION

After the analysis of the current economic situation in Szeklerland, it can be said that counties Harghita and Covasna are among those bringing up the rear when it comes to macroeconomic indicators at the level of Transylvania, and Mureș County, which only partially belongs to this region, can be classified in a lower-middle category. The indicators analysed are the following: GDP and average income (Table 1), foreign working capital investment – FDI (Figure 1), infrastructural development (Figures 2, 3) and HDI indicators (Figure 4). The study also shows that if we were to expand our analysis to a country-wide level, the situation of the region analysed improves significantly by comparison, and may be considered a half-periphery one. However, in his study examining the polarisation found in the country, Benedek József points out that if the situation were to

remain unchanged, Szeklerland would be inching closer to the counties in the Moldova region in the future (Benedek, 2016). In light of this, we can contend that with regard to economic development, Szeklerland can be construed as a half-periphery region in a half-periphery country<sup>16</sup>.

Taking into account the mechanisms of action of the global economy, the study proposes development paths. Analysing the mechanisms of the core-periphery relationship, it can be said that one of the most important conditions for development is industrialisation, the creation and continual improvement of local industry (for instance, extractive industry, food industry, textile industry), which is *the first path*. Built around the industry would be several services, and these would cumulatively generate the improvement of economic life. Since the level of development in the region is low, this cannot be accomplished through own resources, and thus development will need to deploy a dual combination of the controlled investment of foreign working capital on the one hand, and on the other, the gradual, planned and methodical exploitation of endogenous (interior) potentials. The study does not specifically explore this, but the industry in question must be that of the 21<sup>st</sup> century, taking into account sustainability and the significant reduction in fossil energy sources. The *second path* is more complex, and there are several elements outlining its whole. One is infrastructural development, which is both an attractive “playground” for foreign capital as well, and also aids the accomplishment of interior developments. These types of investment always have a stimulating effect on the economy, which, alongside the executing firms and companies, also positively affects other related service industries. Through this, the framework for achieving interconnectedness is created. A global way of thinking must be attained in order to advance local interests. Although we are talking about internal regional development, the concept, perspective and way of thinking must be expanded to a worldwide scale. This is a prerequisite for the region to become integrated into the global economy, which is accomplished by connection to the supply chains. The infrastructure takes material shape and provides a framework, while the achievement of interconnectedness is the result of the adequate use of intellectual capital. Connecting into the global supply chain as an indispensable link and coverage of markets falling outside the region (at a national or even foreign level) will result in break-through economic development and this increase the chances of political advocacy as well. Supply chains and markets may even override political alliances based on tradition; a fact proven by practical examples. To illustrate this, the study presents last year’s trade agreement, concluded between the EU and China, which

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<sup>16</sup> From a global standpoint, Central and Eastern Europe, where Romania also belongs, is a half-periphery territory.

met with disapproval from the United States. There is yet another opportunity which lies in interconnectedness, since due to the geographical location of Szeklerland, might even come to fulfil the role of a national (or even regional) logistical distribution centre for goods in the future.

Closely related to the foregoing are high volumes of information (big data), the inextricably linked elements of knowledge and innovation, which belong in the same group, and also represent the *third path*. If oil was the raw material for the 20<sup>th</sup> century, then that of the 21<sup>st</sup> century will surely be data. There are no armed conflicts between the great powers, yet the war fought over information has become part of the daily routine. And this is correlated to the human factor, its level of knowledge and its capacity for innovation. The relationship between core and periphery also makes it clear that wherever a great amount of data collection, and respectively, adequate data interpretation and use, takes place, that region will soon be host to innovation, and wherever innovation appears, true economic development may be observed. The global assertion of interests on the part of the regions and states which belong in this category is decisive; they represent the core. This can be achieved through the continual development, education, training and retraining of human resources, which receives significant support from the EU funds.

The natural beauty of Szeklerland is common knowledge, and thus the opportunities in tourism are mentioned almost as a cliché. Although tourism, in my view, fails to even come close to the weight represented by industry and innovation, its significance cannot be ignored. However, tourism may only escape its mediocrity provided it becomes linked, in the way shown in the study, with the cultural and creative industries, which might constitute the *third path*.

The paths presented should not be interpreted in an either-or manner; rather, they are to be perceived as sets of measures deployed simultaneously and in parallel, whose common resultant may set the economy of Szeklerland on the path to development.

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