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## SYSTEM COMPETITION: CONCEPT, PROBLEMS AND LIMITS

*Features of competition between jurisdictions (states, municipalities, regions) for mobile factors (labor, investment, human capital) in the integrated world economy are considered, in which there are four freedoms (freedom of trade (mobility of goods), freedom (mobility) of services, free movement of capital) and free movement of people) are guaranteed. The main features of international rivalry in a globalized world are analyzed. Prospects for the development of states in the conditions of constitutional competition in the existing integration structures are established.*

*Keywords:* institutional economics, the four freedoms, international migration, international competition, theory of political economy, public choice, exchange and parallel processes

**Background.** The United Kingdom has left the European Union (EU). The Remainers argued it would be better to stay in the European common market with its freedom of trade, services, free movement of capital and people. The Brexiteers argued it would be better to win total national control about all economic and political decisions. Independence would bring a better position in the world wide competition between the nations. This articles aim is stimulated by the "Brexit" we considered to give a survey of the main publications to the theories of "system competition" to understand which are the necessary conditions, which effects it may have and how it can be a political solution for the real world.

**Analysis of recent research and publications.** We analysed the basic articles of Tiebout [1], V. Hayek [2] and Schumpeter [3; 4]. They show different approaches to the phenomenon of systemic competition, which later authors combine for the purposes of integration policy. Especially, Katz and Shapiro [5], Kiwit and Voigt [6], Mayer [7] and Krstić [8]. On the basis of their works, we found the necessary rules that must be observed so that an integration process can run smoothly

The **aim** of the article is to characterize the international rivalry within the existing integration structures, determine the prospects for the states development in the conditions of constitutional competition between countries.

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**Materials and methods.** The article is intended as a survey and uses sources in the economic literature and the results of actual research of an international team of scientists from the FOM University of Economics and Management Essen/Germany and from the Institut Supérieur de l'Économie de Luxembourg/Luxembourg.

**Results.** System competition theories analyze the competition between jurisdictions (states, municipals, regions) for mobile factors (labour, investment, human capital) in an integrated world economy in which the four freedoms (freedom of trade (mobility of goods), freedom (mobility) of services, free movement of capital and free movement of people) are guaranteed. To compete for production factors they supply social goods, infrastructure, subsidies, taxes and rules as national law. In this way should be realized the citizen's sovereignty and an optimal resource allocation. The constitutional competition can be seen as a discovery procedure for innovations in the political markets which gives information for the politicians and also creates stimuli for new solutions of political problems. International rivalry between states could be described as a complex combination of economic and political competition and can only function as a rule based process with the general acceptance of the rules and rights. However, a policy of harmonization must be avoided to the extent that it restricts competition. Nevertheless, if there is excessive regulation by authorities, an integration process can fail.

*Regulatory competition in a common market.* The process of goods and factor market integration realizes the so-called "four freedoms": Freedom of trade (mobility of goods), freedom (mobility) of services, free movement of capital and free movement of people. They are the cornerstones of the European Unions (EUs) single market and the common currency. On the background of the European history since the 18th century many politicians and the majority of scientists see especially the free movement of people as the greatest achievement of the European unification project. That is the opportunity to live and work in any EU country. The European process of goods- and factor-market integration was very successful. But the EU still is a heterogeneous integration space differentiated by economical, legal, infrastructural and political differences. It is very likely that there will be interregional factor migrations, which can permanently change the structures of the regions in the integration area [7]. In particular, the migration of people from one country to another often meets with the unfriendly rejection of the locals [9].

If these regions, as in the case of the European Union (EU), are national states with peculiar economic and social policy ideas, these factor movements have an international character. Politicians, who intent on regular re-election, may take political measures to strengthen their position via economic incentives, upgrading of the infrastructure, expansion or reduction of social privileges, motivating immigration or emigration. This competition with other regions or nations via political measures is called "system competition" [10].

*Simple neoclassical-static models of system competition.* Tiebout is investigating the possibility of using the market mechanism to determine which public goods and which quantities should be produced by municipalities or states. The central problem here is to get the citizens to reveal their preferences and to prevent free-rider behaviour, which is a rational strategy of consumers of public goods, because consumption of public goods is possible without paying a price. But the citizens are accordingly burdened with taxes to finance the production of these public goods (e.g. legal security, military security, educational institutions, etc.). Tiebout now wants to get the citizen to disclose his preferences with regard to the provision of public goods and to satisfy these articulated preferences in an efficiently via a market [1].

His model is based on the following assumptions:

- Citizens (identical with the voters) are completely mobile and live in the local authority that best satisfies their preferences with its range of public goods.
- Citizens have a complete knowledge of the fiscal and infrastructural differences between the different municipalities and react to them.
- Citizens' income is exclusively capital income (this may be also human capital).
- The public goods of the municipalities do not generate any external effects between the municipalities.
- There are numerous local authorities from which citizens can choose "their" municipality.
- To order to obtain a fixed number of municipalities, it is assumed that certain resources (e.g. land) are fixed. Thus, for every combination of goods made available in accordance with the preferences of residents, there is an optimal number of residents for which the average costs are lowest.
- The municipalities strive to achieve an optimal number of inhabitants. If the number of inhabitants is below the optimal number, they pursue the strategy of attracting additional citizens. In the optimum, they try to keep the number of inhabitants constant. If the population is too high, attempts are made to let citizens go.

Tiebout describes the process that occurs as soon as this system is out of balance. Then some citizens are dissatisfied with the benefit-tax mix in their community. They will leave their municipality or state and move to a municipality or state, which meets their preferences better. By changing the municipality, the preferences of the citizens are revealed.

This competition of the municipalities for the citizens constitutes a market in which the true preferences of the consumers for public goods are articulated. Each municipal council or state government knows exactly which public goods are in demand and offers them by buying or producing them. The total supply of the municipalities corresponds in equilibrium to the true preferences (demand) of the citizens.

Tiebout describes this model as an extreme case, since it concentrates exclusively on public goods. It completely ignores transaction costs of changing regional authorities and also external effects. Above all, the assumptions about the complete knowledge of the citizens and the assumption of mobility are critical. The value of the model is that it represents the basic idea of competition between legislators and "voting with one's feet".

In system competition capital will flow into a country until the last unit of the capital invested just achieves the net return that corresponds to the marginal costs (marginal taxes) of the last unit of investment into infrastructure. The production factor capital is able to rollover taxes raised by emigration to a region or state with lower taxes (capital has an infinite mobility). A higher tax on the unit of capital reduces the net marginal productivity of it for the investors. Therefore, taxing capital can thus drive investment (e.g. Investors and technical knowledge) out of a country.

However, it should be taken into account that infrastructure financed by taxes normally increases the marginal productivity of the capital. As a result, a tax-financed increase in infrastructure will also rise its marginal productivity and thereby the incentive to build up more capital. On the one hand, the taxation of capital reduces marginal productivity and domestic investment. On the other hand, using the increased taxes for infrastructure investments can lead to an increase in the marginal productivity of the capital. As result, the first mentioned effect could be more than compensated by the second effect.

From the point of view of a government, it is a matter of weighing up the provision of public goods and the burdens of financing. A generous provision of infrastructure is not enough to keep mobile capital and technical knowledge in the country or to attract them if the taxes on capital are too high. On the other hand, it is also true that a country in which no or only low taxes are levied on capital can nonetheless be unattractive if the supply of infrastructure is assessed as inadequate.

In the simple neoclassical model, the optimal equipment with infrastructure is achieved where marginal costs and marginal advantages of the infrastructure balance each other out. Therefore, the marginal advantage of provision must be compared with the marginal costs. The positive effect of the infrastructure (i.e. the marginal advantage) decreases the more infrastructure is provided. On the other hand, the marginal costs of providing infrastructure increase the more infrastructure is already offered, so that there is an optimal extent of infrastructure.

A long-term oriented economic policy must include in its calculation that the tax base and tax revenue decrease with a capital outflow. The exit option of the capital factor redefines the opportunity costs of economic policy measures and the scope of national policy is restricted. Tiebout's simple theory shows, that a regional government can influence the inter-regional migration of the mobile factors by policy. But it also shows its limits and risks.

*Evolutionary-dynamic models of system competition.* The phenomenon of scarcity (scarcity of goods or production factors) is always seen in connection with competition. Competition can reduce Scarcity in two ways: The available resources can be allocated (on the basis of given knowledge) to more appropriate goals and individuals. The questions are who can best use the scarce resource with given and constant knowledge and to whom it is most important. The last can be determined by the willingness to pay. In this way, an optimal allocation of scarce goods can be achieved. In such a model world competition is a suitable instrument for bringing about the optimal allocation. On the other hand, existing funds can be used in a new, superior way by promoting innovations. As result more goods can be produced with the same funds. This way emphasizes the innovative effects of competition.

The neoclassical models of perfect competition and the classical price theory focus on the allocation of goods and factors. Competition will be assessed retrospectively based on its results. The equilibrium logic is used as a method for evaluating different allocation states. The analysis of the allocation takes place in two steps:

In a first step, the conditions for an optimal allocation of resources are derived. It is assumed that it is known which goods provide which benefits. There exists a social welfare function. This welfare function is compared to the economic transformation curve (the production possibilities) and thus an optimal result is determined. The benchmark for this optimal result is the Pareto efficiency.

In a second step, questions are asked about the market structure that results in a market behaviour that guarantees the optimal allocation result determined in the first step. The competition is seen as static insofar as the existing knowledge and the production possibilities do not change. About knowledge, which is distributed over many economic subjects, the models of complete competition assume that it is equally accessible to all. The market participants have complete knowledge of all relevant information at all times [11].

*V. Hayek's variation-selection process.* The core of v. Hayek's theory is the systematic consideration of the problem of knowledge. At the level of individual economic subjects as well as at the level of economic policy and general legal rules. A distinction is made between objective real facts and subjective individual knowledge, which is based on a subjective interpretation of the outside world. It represents the sole decision-making basis for economic subjects.

The central problem is how the individual knowledge changes or in what way it is possible to best use the knowledge that is scattered among the individuals. In this context, knowledge should only be discovered through competition. The core of v. Hayek's considerations is to view the competition as a method of discovering facts that would remain unknown or unused without this competition. He understands competition as a "trial and

error" process. Ex ante nobody can know which facts will be discovered and which results will be found. In this sense all results are in a state of flux and a result is not in itself right or wrong. It is therefore impossible to predict results correctly.

Since the knowledge of those acting on the economic-political level is subjectively limited, the various attempts to achieve specific goals through political measures amount to an assumption of knowledge. These attempts require governments to have knowledge which they do not have. Therefore, an institutional framework must be found that allows making use of the knowledge that is scattered across many individuals. For this purpose, general rules of law are required, which distinguish permitted actions from prohibited ones, but otherwise leave individuals free to make decisions. Applicable rules are to be understood as the result of a "variation-selection process" which creates a spontaneous order [2].

The variation-selection arguments run in an analogy to the patterns of biological evolution. The evolutionary process of random variation and subsequent selection is used as a model for development processes in the evolutionary economics. A population has several units with certain characteristics. These characteristics change over time with the help of two mechanisms: First, variations are continuously produced, i.e. units with new characteristics appear. Second, the units reproduce in different ways depending on their characteristics. As result of the varying degrees of adaptation to the requirements of the environmental influences a selection takes place [12]. In summary, evolutionary processes are understood as the result of the combination of variation and selection processes.

In this respect also the technical progress is explained as a consequence of a variation-selection process concerning the number of production techniques. These processes can be understood as trial and error processes using the better techniques, which lead to an accumulation of knowledge through learning processes. The innovation is significant because it increases the number of variations (variety) and thus the options for the selection process also increase. Thus, variety is one of the decisive factors for the accumulation of knowledge. Path dependencies of developments can also be described here. Over time, those units prevail which are relatively better adapted to the selection conditions than others.

The evolutionary process, which also takes place at the level of regulations, must be differentiated from the competitive processes resulting from the actions of economic agents at a market. V. Hayek's explanations of the spontaneous order of the market emerge with clear contours. But the spontaneous order of general legal rules is not clearly outlined. If the meta-rules are also developed in the context of a spontaneous order, the question is how the meta-meta-rules arise.

We see in v. Hayek's theory an attempt to grasp the economically relevant processes more realistically than the neoclassical theory does. His approach marks the methodological transition to evolutionary economic theory [8].

*Schumpeter's theory.* According to Schumpeter, innovations are seen as independent phenomena that cannot be adequately captured with the instruments of neoclassical equilibrium theory. He differentiates between an economy that always moves in the same path and an economy that is in the process of development. This describes the fact that economic life changes its own data continuously.

The finding of innovations is seen as the central result of the competition. The competition is seen as a process of permanent innovations and imitations, which is driven by the willingness of the entrepreneurs to take risks and creativity. As competition promotes technical progress, it also becomes the engine of endogenous economic development. This is the subject of the theory of dynamic competition [3].

Dynamic competition is a rival process of constantly advancing, catching up and overtaking between competitors. Therefore, innovation and imitation processes take place simultaneously. In addition to the overtaking, following or advancing developments between the companies, competition as a process also means that the rivalry character represents gains and losses as the result of the relative performance in comparison to their competitors.

High profits are not interpreted as the result of market-dominant positions. A monopoly position with the corresponding possibility of profit maximization is temporarily to be seen as entirely necessary and acceptable, since companies can amortize their previously high R&D expenditures. These profits attract other market participants into the market. If the competition works, this competes down the prices through imitation and further innovations [4].

The competition as an exchange and parallel process. The concept of the evolutionary explanation of competitive processes includes the conceptual division of the competition into two sub-processes, namely the exchange and the parallel process

The exchange process takes place between the sellers and buyers of goods and services. The parallel process takes place only on one side of the market. The suppliers of goods compete in the exchange process for the purchasing power of the consumer. This leads to product and price competition between the providers. Each provider tries to place a more attractive offer than his competitors.

On the side of the customer, the comparison and evaluation of the different offers causes transaction costs. The selection of certain offers by the customer in the exchange process results in profits or losses for the different providers. The customers' decisions for certain products reveal information about their preferences. The respective profit or loss situation provides the incentive on parts of the providers to use the information gained within the parallel process for imitating their competitors or generating own innovations. It could be stated that the variations that arise in the parallel process on the side of the provider are selected in the exchange process by the customer [6].

*Balance of the evolutionary approaches of the system competition.* According to the evolutionary models of systemic competition the political process also can lead to the enforcement of citizen's preferences on the political level. Similar to competition between the providers on the goods markets the systemic competition can secure consumer sovereignty. The fundamental lack of knowledge of the politicians can be cured through an international competition for locations. The evolutionary competition model is transferred to the states level. The states are seen as providers of institutions, e.g. legal rules, tax-systems etc., that are selected by mobile production factors. Private competitors, e.g. capital owners (investors as well as human capital owners), can compare the quality of the institutions.

The states, as political competitors, are encouraged to develop more attractive institutional innovations. This corresponds to the dimension of competition as a discovery process in the sense of v. Hayek. In addition, systemic competition includes a choice of citizens between the state institutions. This implies a kind of control function on the states as providers of rules and regulations and thus errors can be corrected.

*The public choice theory* can analyse the political process more precisely. The states compete with one another in systems competition for the mobile factors of production. The creation of an institutional offer by the state under consideration is a parallel process. The states compare their offer with the competing states. The comparison or the observation of other states is to be regarded as essential for the imitation and takeover of institutions of other states. Through the imitation, successful regulations or parts of them can be adopted, and so the same starting point of the pioneering state can be searched for potential developments [13].

As a result, the choice of institutions takes place by the citizen. It is in turn influenced by institutions such as the applicable legal system. The prerequisites for this include freedom of establishment for individual citizens and the right to emigrate or immigrate. It is also a relevant prerequisite that the country of origin principle or the principle of mutual recognition is practiced. In relation to this exchange process, the exit of mobile production factors can be understood as institutional arbitrage. From the point of view of systemic competition, the exit represents an exploitation of institutional differences in different legal frameworks, which are reflected in the expected returns from economic activity.

International trade can also trigger competition between institutions. This is the case when residents can choose between the products and thus also make a decision about the competing national regulations. For this, the importing country must recognize the foreign regulations by allowing these products on the domestic market. Such a regulation-related change in trade flows can lead to relocations of production sites to those countries that have implemented the regulations judged to be more favourable. This is exactly what is possible under the special circumstances of goods and factor market integration.



The consequences of the exchange process can be found in the reactions of the political actors. Through voice & exit, the national politicians in the political process are made aware of such arbitrage processes by the interest groups but above all by the citizens. If system competition works, these signals stimulate political actors to create new or other institutional arrangements in their political offering, to make their territorial sphere more attractive to mobile factors with regard to international factor migration [14].

The choice of institutions can also take place within the framework of international trade in goods and services, and thus a system competition can take place. This can work if residents can choose between products that are put on the market under the rules of different national regulations. The consumer can choose those imported products that are subject to other regulations (e.g. quality standards). The flow of trade could change due to regulation and this could lead to a migration of domestic producers to the countries which offer the more favourable regulations for them. A basic requirement for domestic consumers to be able to choose is that the importing country recognizes the foreign regulations and allows free trade across borders in accordance with the country of origin principle. If this prerequisite is met, the residents also decide with their product choice about the desired regulation, which influences the properties of the products.

Political actors will respond to emigration as an institution choice. The consequences of the exchange process are perceived by the competing providers of general rules with regard to the effect on economic development. It can be interpreted as a partial result of a system choice by companies and consumers. However, the political actors will not react directly to emigration. Reaction speed and intensity depends on the intensity of political competition. According to the public choice theory the respective likelihood of re-election and the possibility of sanctions due to a triggered migration of mobile production factors are important for the political mobility of the respective governments. It should also be higher before elections in which there is a risk being voted out of office. The possibility of winning or losing votes is a certain counterpart to the pecuniary effects in economic competition. Perhaps, political actors are made aware of arbitrage processes not through exit, but through losing voters. If the system competition works perfectly, the perception and the corresponding interpretation of these signals lead the political actors to a permanent improving of the institutional arrangements. They try to make their sphere of influence more attractive for the international migration of factors. The feedback between exchange and the parallel process of system competition includes the intermediate step of political competition.

System competition should act as a detection and control procedure in analogy to economic competition. The discovery process should generate new political problem solutions and take into account the fundamental lack of knowledge of politicians and citizens. The politicians do not have perfect

knowledge of the changing preferences of the citizens and can accordingly be wrong about the possible adequate solutions to problems [15]. The systemic competition deals with the constitutional lack of knowledge in such a way that incorrect assessment of the effect or the assessment of state measures can be uncovered with comparatively little conflict. The system competition as a discovery process can be a solution that has the advantage over uniform harmonization. To avoid the effects of the European harmonization policy was one of the main arguments of the British Brexiteers. Incorrect assessments have a decentralized and spatially limited effect and can thus be corrected easily and quickly. However, this presupposes that the established bureaucracies in administration, jurisdiction, politics, the military, etc. do not practice any blockade that would damage the beneficiaries of the system competition [16].

System competition initially only emits signals that need to be interpreted. It is not clear which properties of which combination of legal rules are decisive in institutional arbitrage. Hence there is no tendency for the systems to compete towards an equilibrium state of knowledge. System competition is the right way to overcome the problem of lack of knowledge. It allows information from the direct comparison of a simultaneously usable variety of institutional hypotheses about social problem solutions. System competition as a control procedure relates to two essential consequences: On the one hand, the institutional offers can be checked by the inquiring citizens for their problem-solving quality. Furthermore, the citizens can control the quality with their reaction to the institutional offer. On the other hand, political power is limited by systemic competition. Politicians who are interested in re-election are controlled by systemic competition and ideally, welfare state incrustations are counteracted. National governments exposed to system competition are subject to ongoing control by those who have rights of disposal over the mobile factors. In this way, the restriction of individual rights to handle by the modern welfare state can be counteracted [17].

*A framework for the system competition* is required. A kind of competition order, which controls the process of competition. So-called meta-rules have to be found that guarantee the fundamental freedoms for the citizens, implement a ban on cartels by the states, avoid failing competition and solve the methodological problem of infinitive recourse.

The basic freedoms of the citizens must be guaranteed, since without the exit option or the possibility of threatening to emigrate, the citizens cannot choose freely between the institutional arrangements offered. In addition, factor migration also presupposes basic freedoms such as freedom of establishment, free migration of capital, goods and services in the sense of the country of origin principle.

The ban on cartels for the countries involved means that the providers of institutional problem solutions should act freely in the parallel process. This means it is explicitly allowed to offer alternative rules. This presupposes that the states have the regulatory competence. They are not involved

in harmonization solutions by foreign institutions like the EU. Even the states should not have the competence to be able to stipulate binding harmonisations with one another, since otherwise they could likewise prevent competition.

For the advocates of evolutionary theory avoiding competition errors is not a mistake, since they are inevitably inherent in system competition. They are only questions that have to be taken into account when designing the corresponding framework. If there are market defects above the national level suitable regulations are required. But the state should only become active if there are market failure or market imperfections. In addition, the possibility of state failure must be included. The main thing is to find suitable rules of order that shape the system competition in such a way that it would be possible to generate meaningful solutions in all these areas. It is important to find suitable meta-rules which solve the problems or do not allow them to arise [5]. For example, regulations are conceivable in which one grants freedom of movement without giving up the right to one's welfare state by introducing waiting times for transfer payments for new citizens. There is also the possibility of an impending shortage of public goods by privatizing infrastructure projects. A market for citizenships is also discussed as a solution to the problem of emigration and immigration for the welfare state and the collective capital stock [18].

*Summary and criticism of the evolutionary models.* In contrast to the neoclassical-static models with their postulate of complete information, the evolutionary models view the state out of the public choice perspective. That means politicians do not have perfect knowledge and are anxious to be re-elected. Then errors arise in the political process between the political actors, e.g. when well-organized minorities enforce privileges at the expense of the majority. The state expands its activities beyond what is necessary in terms of market failure theory.

The evolutionary analysis gives attention on the political process as part of the framework conditions that cannot be analysed in neoclassical theory. In this way a systematic analysis of the competitive processes on the market and also in the political field is possible. The effects of control and detection procedures in system competition are illustrated. The importance of meta-rules is recognized.

By explicitly considering the respective political incentives, a simple solution to complex phenomena will not be possible. It is also a reproach against the evolutionary models that they only to a limited extent allow the derivation of concrete results for action. As a final result, there is no formal proof of the positive consequences of system competition. However, this can only be perceived as a deficiency if one considers an exact description of reality to be possible at all.

The considerations caught in the evolutionary approach relate to the violation of the principle of subsidiarity in the relationship between the state and the citizens. There is a concentration on the unnecessary state tasks. System competition could lead to efficiency gains through deregulation and privatization.

*Limits of system competition.* As shown above, system competition represents a complex link between economic and political competition and can be described as a rule-based process. However, there are also exogenous and endogenous limits to this construct.

An exogenous restriction results from the problem that precisely the political actors who are to be restricted in their political power through systemic competition must grant the "four freedoms". Otherwise the system competition cannot take place at all. Unlike private companies, political actors do not act in an institutional space whose boundaries they cannot change. Therefore, there is an acute danger that systemic competition will not be realized because the citizens are not granted the necessary freedoms.

Another danger lies in the implementation of harmonization by the political actors. This behaviour could be interpreted here as a restriction of the competitive parameters by a cartel. For example, the EU guarantees the "four freedoms" and a safeguarding of these freedoms by a prohibition of state and private restraints of competition. These basic rules have been anchored constitutively. The community's quite general obligation to establish fundamental freedoms has been transformed into individual, enforceable rights of the citizens. These freedoms secure the economic room for manoeuvre and, due to the private law regulation; there is no access by the member states.

Since the Maastricht Treaty, however, a regulatory risk potential has become clear, because the member states are not protected from distortions of competition as a result of joint actions. In addition, the voluntary commitment to liberalize the EU vis-à-vis third countries can be classified as low.

The endogenous limits of system competition are limits that are anchored in the process of system competition itself. They are determined by politically determined rules that make it possible or that can hinder it. The endogenous limits result from the competition as a process and from the nature of the institution that is to be exposed to the competition. The system relatedness and path dependency of institutions as well as the assumptions about the knowledge and mobility of the actors are important.

First of all, it should be noted that there are restrictions on the adaptation and innovation effects of the process itself due to its functional conditions. There are information and mobility restrictions due to the different functioning of political competition about economic competition. Also due to the interlinking of the two sub-processes. The system competition is dependent on the existing mobility of the citizens. In addition, cognitive limits, which are based on the constitutional lack of knowledge of the individual, must be observed. The constitutional lack of knowledge makes it necessary for all actors to incur transaction costs. The institutional competition also has to struggle with the weaknesses of the political competition, because not all interests can be organized equally well. It is therefore questionable whether systemic competition can heal the deficits of

political competition. It cannot be assumed that system competition without corresponding procedural rules for decision-making can bring about a solution to the problem of rent-seeking.

The second possibility of endogenous limits of system competition are the properties of institutions. Two properties appear to be particularly noteworthy here. These are the system-relatedness or compatibility and the path-dependency of institutions. The system-related nature of institutions in the sense of compatibility means the diverse interweaving of laws and rules, which make it nearly impossible to harmonize individual laws in a meaningful way. It is resulting in a variety of influences on other laws urgently need to be considered. The path dependence of institutions describes the stability of institutions in terms of general rules but also in relation to laws and ordinances. This persistence is the result of dealing with institutions over a longer period. It is based on the learning and network effects of private actors dealing with these institutions. The path dependence of institutions is linked to social and moral ideas. For those who request such institutions, the transaction costs decrease over time. After a prolonged use more and more actors use these institutions. The path dependency of institutions is greater, the stronger a complementarity relationship has developed between the external institutions and the private, autonomous, internal institutions.

External institutions that result from the claim to control welfare in a country by the means of law are particularly exposed to systemic competition. With the help of these institutions, certain goals are pursued for certain interest groups. These attempts at control are anyway subject to a fundamental lack of knowledge and should therefore be assessed critically. Attempts to steer in open systems are always in danger of failing, since discrimination against certain population groups is an invitation to implement institutional arbitrage through factor migration.

**Conclusion.** International integration like the European Union (EU) had been more or less successful for its members. But all members participated via the Intergovernmental financial equalization. The four basic freedoms in particular open up a wide range of opportunities for the citizens of the integration area for economic success and personal freedoms. However, the member states are still largely politically independent states that compete for factors (people and capital) through their supply of public goods (infrastructure, law and tax systems etc.). In the long term, this competition can lead to economic structures which, through voluntary adaptation of the member states, bring about an approximation of political rules. The Integration Policy therefore should give room for these forms of competition between the member countries and avoid extreme harmonization and paternalism from above. Otherwise the "Brexit" will not be the last exit of a member country.

REFERENCES

1. Tibout, C. M. (1956). A Pure Theory of Local Expenditure. *Journal of Political Economy*. (Vol. 64), 416-424 [in English].
2. Hayek, F. V. (1998). Der Wettbewerb als Entdeckungsverfahren. *Freiburger Studien: Gesammelte Aufsätze*, Tübingen [in Deutch].
3. Schumpeter, J. A. (1934). *Theorie der wirtschaftlichen Entwicklung*. 9th Ed. (1993). Berlin [in Deutch].
4. Schumpeter, J. A. (1952). *Aufsätze zur ökonomischen Theorie*. Tübingen [in Deutch].
5. Katz, M. L., & Shapiro, C. (1994). Systems Competition and Network Effects. *Journal of Economic Perspectives*. (Vol. 8 (2)), 93-115 [in English].
6. Kiwit, D., & Voigt, S. (1998). Grenzen des institutionellen Wettbewerbs. *Jahrbuch für Neue Politische Ökonomie*. (Vol. 17), 131-337 [in Deutch].
7. Mayer, A. (2002). *Ordnungspolitik und Europäische Integration, eine institutionenökonomische analyse*. Berlin [in Deutch].
8. Krstić, M. (2012). The role of rules in the evolution of the market system. Hayek's concept of evolutionary epistemology. *Economic Annals*. (Vol. LVII), 194, 123-140 [in English].
9. Lang, F. P., & Melnychenko, O. (2016). Brexit's economic effects on the European Union. *European Cooperation*. (Vol. 6(13)), 9-16 [in English].
10. Voigt, S. (2019). *Institutional Economic. An Introduction*. Cambridge, 7 [in English].
11. Lockwood, B. (1994). Pareto efficiency; J. Eatwell, M. Milgate, P. Newman (Eds.). *The New Palgrave Dictionary of Economics*. (Vol. 3), 811-813 [in English].
12. Doepfer, K. (2006). *Evolutionary economics: a theoretical framework. The evolutionary foundation economics*, Cambridge/UK [in English].
13. Tullock, G. (1994). Public choice; J. Eatwell, M. Milgate, P. Newman (Eds.). *The New Palgrave Dictionary of Economics*. (Vol. 3), 1040-1044 [in English].
14. Lang, F. P. (2021). International Migration and Brain Circulation. *European Cooperation*. (Vol. 1 (49)), 74-80 [in English].
15. Mussler, W., & Wohlgemut, M. (1995). Institutionen im Wettbewerb; P. Oberender, M. Streit (Eds.). *Die Europäischen Arbeitsmärkte im Integrationsprozess*, Baden-Baden [in Deutch].
16. Lang, F. P. (1999). Innovations- und Edukationssysteme im Spannungsfeld von Gruppeninteressen; B. Rebe (Ed.). *Humanität – Wandel – Utopie*, Oldenburg [in Deutch].
17. Downs, A. (1957). An economic theory of political action in a democracy. *Journal of Political Economy*. (Vol. 65), 2, 135-150. Retrieved from <http://www.jstor.org/stable/1827369> (Accessed March 25, 2021) [in English].
18. Kerber, W. (1998). Zum Problem einer Wettbewerbsordnung zum Systemwettbewerb. *Jahrbuch für neue politische Ökonomie*. (Vol. 17), 131-337 [in Deutch].

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**Ланг Ф. П. Системна конкуренція: концепція, проблеми та обмеження.**

**Постановка проблеми.** Великобританія вийшла з Європейського Союзу (ЄС). Прихильники ЄС доводили, що було б краще залишатися на загальноєвропейському ринку зі свободою торгівлі, послуг, вільним пересуванням людей та капіталів. Люди, які підтримували ідею виходу Великобританії з ЄС, вважали, що було б краще мати загальний національний контроль над усіма економічними та політичними рішеннями. Незалежність принесе крапку позицію у світовій конкуренції між націями. "Brexit"

спонукав написати цю статтю, яка має на меті оглянути основні публікації, присвячені теоріям "системної конкуренції", щоб зрозуміти, які умови необхідні та які наслідки вона може мати і яким може бути політичне рішення у реальному світі.

**Мета статті** – охарактеризувати міжнародну конкуренцію в рамках існуючих інтеграційних структур, визначити перспективи розвитку держав в умовах конституційної конкуренції між країнами.

**Матеріали та методи.** У статті використано матеріали опитування, джерела з економічної літературі та результати фактичних досліджень міжнародної групи вчених з Університету економіки та управління FOM Ессен (Німеччина) та Вищого економічного інституту Люксембургу (Люксембург).

**Результати дослідження.** Теорії системної конкуренції аналізують конкуренцію між сферами повноважень (держави, муніципалітети, регіони) за мобільними факторами (праця, інвестиції, людський капітал) в інтегрованій світовій економіці, в якій гарантовані чотири свободи (свобода торгівлі (мобільність товарів), свобода (мобільність) послуг, вільний рух капіталу та вільний рух людей). Для того, щоб конкурувати за виробничі фактори, вони формують соціальні товари, інфраструктуру, дотації, податки та нормативно-правове поле. Таким чином, реалізується суверенітет громадянина та оптимальний розподіл ресурсів. Конституційна конкуренція може розглядатися як процедура відкриття інновацій на політичних ринках, яка дає інформацію для політиків, а також створює стимули для нових рішень політичних проблем. Міжнародну конкуренцію між державами можна охарактеризувати як складне поєднання економічної та політичної конкуренції, яка може функціонувати лише як заснований на правилах процес із загальним визнанням норм і прав. Однак слід уникати гармонізації настільки, наскільки вона обмежує конкуренцію. Проте, якщо є надмірне регулювання органами влади, процес інтеграції не може бути реалізованим.

**Висновки.** У довгостроковій перспективі міжнародна конкуренція може призвести до економічних структур, які шляхом добровільної адаптації державами-членами забезпечують реалізацію політичних правил. Тому інтеграційна політика повинна створювати простір для цих форм конкуренції між державами-членами, уникаючи крайньої гармонізації й патерналізму.

**Ключові слова:** інституційна економіка, чотири свободи, міжнародна міграція, міжнародна конкуренція, теорія політичної економії, громадський вибір, обмін та паралельні процеси.