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The territorial capital of urban functional areas as a challenge for regional development policy: An outline of the concept

Abstract

Objective: In this article Urban Functional Areas (UFAs) and their essence of matter and leading qualities are considered through the prism of theoretical concepts such as transaction costs, the concept of territorial capital and the space of flows with connection to the network economy.

Research Design & Methods: Each theoretical concept prompts its own group of intervention instruments in the processes of territorial development. On this basis the authors focus on explanation of the possibility of public intervention in the functioning and development of urban functional areas.

Contribution / Value Added: This article has a theoretical character but formulates general basis for elaboration of integrated development policy on the level of local self-government co-operation".

Finding and recommendations: The authors show that the territorial authorities and enterprises in Urban Functional Areas should integrate their development policies around the "new quality resource" in the form of territorial capital. The territorial capital in UFAs of modern economies becomes the most important source of building long-lasting competitive advantages for businesses.

Keywords: urban areas, territorial capital, economy of flows, economic development, planning and policy

JEL classification: R1, R5,O2

1. Purpose and scope of deliberations

Searching for an answer to the following question is the key issue of this study: what actions taken as part of an implemented development policy can contribute to an increase in the competitiveness of urban functional areas (UFAs) and, in particular, to an improvement in the competitive position of business organisations operating in those areas. A major reason for interest in UFAs is finding ways to form durable competitive advantages for a state's economy. The new concept of building the sustainable competitive advantages of UFAs can be based on the idea of territorial capital. However, we must underline that the quantitative limits of this article have forced the authors to focus on the general concept and not specific actions recommended for development policy in functional areas. That is not only unable to be included in a relatively short study, but it also does not fit into the theoretical concept addressed

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by the authors. Answers to the question will be sought in the existing theoretical concepts acquiring, directly or indirectly, an assumption of the necessary intervention of public entities into development processes. In other words, a review of several theoretical concepts, known as theories of regional development, will be made, with a focus on the resulting indications for the policy of increasing the value of the territorial capital[1] of functional areas. One can assume quite evidently that a lack of efficient development policies for functional areas, and UFAs in particular, results in a part of the growth potential of our country, considered in territorial systems, is not used, due to flawed market mechanisms. There is an opportunity to increase the value of territorial capital hidden in the reference functional areas, which makes up the key hypothesis of this study. One should stress here that in order to gain a competitive advantage even minor changes (modifications) in the implemented development policy are sometimes sufficient, which results from the essence of building a competitive advantage. The better one wins, which does not necessarily mean that the winner is much better.

Before discussing the main points of this study, some key terms need to be explained, including urban functional areas and causes for territorialisation of development policy.

2. Functional areas and territorialisation of development policy – basic explanations

Functional area

Urban functional areas are specific territorial systems, with two distinctive characteristics, according to the simplest interpretation: a central city, which is a place with relatively highly concentrated social and economic phenomena and processes; and an area of spatial expansion of some of the presented phenomena and processes beyond the administrative borders, i.e. into the surroundings of the central city. Both these characteristics are objective in such a sense that they occur regardless of whether development policy entities are aware of them. One can then claim that the existence and even functioning and development of UFAs is an objective reality. In such a sense both functioning and development are mainly based on the market game, i.e. based on exceedingly vigorous mechanisms that do not always lead to the best results, and, first and foremost, they do not use all of the potential possibilities of UFAs, as specific territorial systems. This means that development policy is able to improve the functioning of UFAs, and hence to improve current living conditions of their inhabitants and conditions to stimulate economic and social processes. Looking from a different perspective, it should be noted that there are opportunities to improve a location's attractiveness, and to better use the existing internal capital and to improve its attractiveness as a place to live.

There are two more key issues related to the essence (features) of UFAs. Firstly, UFAs constitute compact territories when it comes to physical characteristics; however, their borders are blurred and the delimitation criteria from the functional point of view[2] are also ambiguous. The impact of the central city is the most commonly mentioned criterion, which is evident but at a very general level of explanation. For operational purposes (i.e. to identify the borders of a UFA), it is, however, necessary to define specific manifestations (measures) of impact. Significant differences in the results of the analyses performed may be noted here. The issue of UFA delimitation is a separate concern, which is not the key topic of this study. It has been raised to emphasise that spatial coverage of a UFA varies over time, according to changes in the gravitational impact of the central city

[1] This term is explained further in this study.

[2] It should be emphasised that the modern economy, which is highly mobile and information-based, demonstrates gradually increasing discrepancies between the features of physical environment and invisible information processes and goods-flow processes.

(a gradual increase in the impact thereof is observed in Polish conditions); depending on the point in time, the perception of the spatial coverage may vary, depending on the acquired detailed criteria of delimitation. In this way, or another, a precise border of a UFA as the 'subject' of intervention is identified arbitrarily on a case-by-case basis. Nevertheless, this does not contradict the above-mentioned interpretation which treats functional areas as objective entities and thus independent of the degree of their recognition and the approach towards them of the public authorities operating within them. Only the criteria (methodology) of their identification are arbitrary and lead to a more or less precise representation of something that exists objectively (Kudłacz & Markowski, 2017). Another issue which should be mentioned in the introduction to this study applies to the size of entities operating within a UFA, each having specific expectations for its environment but united by common interests focusing around the need for co-operation.[3] This applies in particular to local government units. As a result of co-operation revealed by different agreements new values emerge, which have a significant impact on the development potential of an individual, including the generated external effects[4] the internalisation of which may bring benefits to all entities in the given UFA.

According to the authors of these deliberations, one should take a flexible approach to the borders of functional areas and note the differences between an area identified for statistical monitoring of development processes according to territorial criteria and the area which will be identified in a process of a 'planning' intervention. The latter concerns the anticipated system of spatial social and economic relationships. The two delimitations do not have to overlap. In the latter case the delimitation criteria need to relate to the acquired criteria of interventions and probable development scenarios. It is sufficient to analyse the facts and the attempts of the ministry in charge of regional development when identifying functional areas and areas of strategic intervention within official documents of regional and spatial policy (e.g. arrangements implemented in the KSRR, and the KPZK[5]). An urban functional area is a potential structure within which it is easier to provide gradual balancing of the circulation of resources and conditions for an endogenic and sustainable development. We can empirically confirm the validity of the concept of resources as a function of knowledge (Dembowski, 1989). In UFAs one can easily observe shifting over time of the barrier of material limitation of resources towards a function of 'unlimited nature of resources' related to unlimited human knowledge and implemented innovations.

Territorialisation of development policy

Territorialisation of development policy is another term which needs to be explained. Generally, it is a policy addressed to a specific territory, one not necessarily limited by the borders of an administrative unit, using individualised impact instruments. It varies from a regional/local policy by not being allocated to systems of administrative units, and, furthermore, its impact exceeds standardised (i.e. the same for all) intervention instruments. The latter issues need to be discussed in detail. A territory-oriented policy assumes that each delimited area demonstrates a specific development potential but a part of that potential has its specific features, which rarely occur in other territorial systems, and this is the part which is or should be the subject

[3] However, it should be noted that people are not always aware of it or, if they are aware of it, their eagerness for compromise is not sufficient.

[4] External effects cover material and non-material products which the given entity (i.e. the recipient) obtains from its environment, without compensating for the costs of their making, assuming that the recipient is not able to control and/or affect the operating volume of the units making the environment.

[5] Both documents are strategies made at the national level: the KSRR is the national strategy for regional development, while the KPZK is the concept for the spatial development of the country.

of special interest from the entities responsible for implementation of the development policy. The implementation of the concept of development policy territorialisation consequently entails the implementation of a specific formula for a territorial contract, if we want to make it an efficient instrument, complying with the concept of development territorialisation. The observations precisely match the nature of urban functional areas. UFAs themselves are a specific development potential whose activation requires actions to be taken by relevant policy entities.[6] In other words, besides the traditional components of general development potential there is the specific one that is the subject of our interest, the essence of which is based on the aforementioned commonality of interests and the utilisation of which requires agreements, co-operation and integrated and co-ordinated activities, considering the long-term perspective. Its results may include higher quality of life for the local population, better competitive position of companies and, first and foremost, increased development dynamics (Kudłacz & Markowski, 2017).

3. The territorial capital of functional areas

The concept of territorial capital can be linked to policy territorialisation. It is a new approach to development factors, taking into account interactive relationships between the system of functions and physical development of a territory as a kind of generator of a new type of resources that stimulate its development. The implementation of a policy is oriented towards the formation of a territorial capital, which gains special significance in the case of UFAs. The elements of the above-mentioned capital include phenomena (processes) which can be activated by efficient intervention policy. Taking the above into consideration, the concept of a territorial capital should be presented in more details.

Territorial capital represents a category which is frequently mentioned when discussing regional and local development. However, it is not conclusively interpreted. Usually it is referred to as all of the material and non-material advantages of a particular territorial unit, conditioning its development and competitive position (see Zaucha *et al.*, 2015, p. 123). A similar interpretation was presented by Capello, Caragliu and Nijkamp (2009, p. 8), although referring to an OECD publication (Territorial Outlook, 2001) they quote a definition that actually limits the concept to specific properties of a region, which determine its competitive advantage against other regions (Capello *et al.*, 2009, p. 7). For a better presentation of the essence of territorial capital, let us differentiate between three semantically similar terms referring to the development of a single territorial unit, i.e.: development potential; active development resources; and territorial capital.

The first term, **development potential**, refers to all of the endogenic material and non-material resources that a unit holds, both those already activated as well as those which can become a basis to initiate development processes. Each territorial unit has such a potential; however, that potential tends to be only partially used. One can enumerate three causes for a part of a development potential not being used in a specific period of time (Kudłacz, 2016, pp. 343–344):

- the unprofitability of its activation in the specific period,
- a lack of resources for its use/management,
- a lack of skills needed to use it.

Active development resources, as the name suggests, refers to a part of the owned capital used in a specific period.

[6] This study does not deal with the issue of the entity responsible for the implementation of development policies for urban functional areas. In the individual case of a specific UFA the entity should be a territorial government of a unit within which the given UFA is located. The regional (voivodeship) government should play the role of an entity which co-ordinates and stimulates the development of a network of mutual links of all urban functional areas of its unit and the metropolitan area in particular. By analogy, on the national scale it applies to the state authorities with reference to metropolitan areas.

Relating to the above-mentioned explanation, **territorial capital** covers everything which was assigned to active development resources (mentioned above) and additionally all internalised impacts of conditions generated by the environment. Briefly speaking, as the term suggests, it is 'territorial' because the elements existing in the territory and its environment determine the development dynamics.

There are some opinions about the territorial capital of a UFA which assert that it is the total of the capitals represented by units creating the given area. Such an approach completely misses the distinctive feature of this kind of area, i.e. that it is created by a group of dynamically linked units. The network of links gives the opportunity to bring added value to the territorial capital of the entire UFA, the beneficiaries of which may include individual co-creating units as well as business organisations in the corporate sector. The territorial capital of a UFA can be described in two ways. In a wider context it correlates with the above-mentioned definition acquired for a single territorial unit (which a UFA is) but considering a specific resource rooted in actions which co-ordinate, organise and strengthen the network of links and stimulate development. In a narrow sense one can limit the concept to the UFA-specific part of territorial capital. In other words, territorial capital represents specific external benefits which are generated and available as a result of a multifunctional interaction of users with regard to a separately identified territory. Therefore territorial capital has the nature of a generated 'complex club good' which is dynamic in time and space, and available for users (club members) operating within a given functional area (Markowski, 2011).

Territorial capital is intrinsically related to systems of urbanised areas, such as UFAs. It is the basis for making products which use human creativity and intelligence supported by intelligent IT solutions. This dramatic change in the management model is widely described in literature, including Azkuna (2012), Laundry (2000), Florida (2005), Howkins (2001), Komninos (2008) and Mitchell (2007). In Poland the issue was investigated by authors such as Domański (2000), Domański and Marciniak (2003), Klasik (2012), Makieła and Szromnik (2012).

The conclusions related to the concept of territorial capital will thus be as follows: UFAs have an intrinsic potential ability to strengthening the given capital, and hence the dynamics of development processes, by using appropriately designed co-operation from local government unit(s) leading to rationalisation of individual activities. However, the processes need to take into consideration the specific nature of **functional area delimitation**, which has been mentioned in a different context. If cities are economic regions, the functional approach to an urban system must not be reduced to delimitation by its morphological features. Nowadays, the relationships between spatial and physical characteristics, i.e. management and functional relationships, have gradually become blurred. The reach of urban functions greatly exceeds the borders marked by bands of specific management. A new phenomenon of the flow economy and network products (including decreasing the costs of overcoming the space resistance) is the discontinuity of spatial structures between strongly linked urban centres. The spatial discontinuity of development processes is not an exception but instead a permanent feature. Therefore it can be concluded that development promoting public policy should cover various delimitations of areas, depending on the specific development purpose(s). For the purpose of urbanisation control it can be a different area than for business purposes. In the first case the delimitation criterion is marked, for example, by the reach of the built-up area, while in the latter case it is commuting and service markets. Incorrect identification of the given area limits possible interventions, or can even aggravate pathologies, impede development processes and generate high social costs.

New development paradigms require redefining of contemporary location factors and making reference in development policies to the potential role of complex resources (mega-resources) as special

products of evolving civilisation. If following Dembowski (1989) we assume that 'resources' are an economic category and a function of human knowledge, in the process of the progressive dematerialisation of a manufacturing area – typical for an information society – we need to note that the significance of material factors in a mega-resource decreases, while the role of intellectual factors, such as knowledge, skills and creativity, increases. Knowledge, skills and creativity related to a specific place then determine economic development and growth. If managed properly, the resources not only generate significant profits but also greatly contribute to a transfer of financial benefits to places where the mega-resource is generated, at the expense of countries and places based on simple resources.

In this context the essence of building a permanent competitive advantage for commercial activities performed in a functional area is building a complex 'interactive resource' which is a result of intensive relationships between (and activities by) people organised in different institutions (characterised by high levels of entrepreneurial skills, innovativeness and trust) who produce a special added value which enables the production sector to achieve high productivity levels. The special resources provide companies with a competitive advantage in ever more competitive global markets. Territorial capital can be generated by skilful linking and combination of natural resources with the quality of physical (spatial) management and intellectual resources of people. It is strictly related to the ability of local government units to co-operate within functional areas and high levels of social trust (Markowski, 2016).

4. The theory of transaction costs to explain the abilities of UFAs with regard to territorial capital development

The theory of transaction costs (TC) is among the basic categories of the new institutional economy (NIE), although the concept of this kind of costs is much older. It is attributed to Coase, who in an article entitled '*The Nature of the Firm*' attempted to find an answer to an apparently simple question: why do firms exist and why are they established? Coase performed various analyses and concluded that an important cause is the opportunity to reduce the general costs of concluding a transaction, which he called contract costs (Coase, 1937, p. 391). The term 'transaction costs' was introduced into literature some time later by Williamson, as a cost of organising, co-ordinating, supervising and securing a transaction (Williamson, 1998). The present-day interpretation of transaction costs is very extensive[7] and goes far beyond the concept used in this study.[8] Let us then focus on the ideas dominating in Williamson's concept. The reference is important for the topic of the study for two reasons: firstly, with regard to an integral link in his concept between the TC and institutions among which a contract is binding; secondly, Williamson indicates determinants which prejudge the value of the TC (Williamson, 1998).

To make further deliberations clear, let us define the conceptual scope of the three categories mentioned above, which are closely related to the essence of the theory of transactional costs: transaction, institution and contract.

The explanation of **transaction** as a category of the costs under discussion is the easiest, because the concept is close to its common understanding but with a certain reservation. It means that a transaction is an act of exchange in its wide sense. As Williamson emphasised, the term 'transaction' does not only cover market exchanges, it also covers all acts of exchange within an organisation (observation by Kowalska, 2005, p. 52). Due to obvious reasons, a transaction is a basic unit of analysis in TC theory. The concluding of transactions entail certain costs

[7] There is significant literature on the topic. A concise review of the term's interpretation in Polish literature can be found in publications by Hardt (2005, 2006 and 2009).

[8] It should be emphasised that entities are often not aware of transaction costs and treat them as non-specified conditions.

for the parties to the given exchange and often also for the environment in which they operate.

The costs of external exchanges tend to be neglected in analyses or treated as factors of little significance, which hampers the results of TC analysis. However, it needs to be highlighted that under conditions of contemporary economy (i.e. rapid losing of the internal competitive advantages – gained as a result of technical and organisational progress – that companies have over their competitors), maintaining durable competitive advantages of companies and territories is more and more determined by the quality of the environment and the regional external (local) effects which are accumulated therein. Here we can link the theory of transaction costs with the given territorial capital and the concept of relational production from the essence of a club good, which is a kind of counterbalance for transaction costs of market contracts.

The above-mentioned institution is another component of TC theory. In a general and simple approach **institutions** represent the rules of the game. Institutions can be defined as sets of operating rules which are used to identify who has the right to make decisions in a given area, what actions are acceptable or restricted, what general rules have to be observed, what procedures need to be followed, what information needs to be provided and what information does not need to be provided, and what benefits of specific proceedings are. All rules contain prohibition or permission standards or standards requiring certain actions or results (Ostrom, 1990, p. 51). North provides a different definition of institutions, asserting that institutions are acquired limitations which shape political, economic and social interactions. They cover both informal limitations (sanctions, taboo, habits and traditions) and formal limitations (constitutions, acts of law and ownership titles). In history institutions were invented by humans to create/introduce order and limit the uncertainty of exchanges (North, 1991, p. 97). A mention of the reduction of the uncertainty (of transactions) is very important for us and we will come back to it later in this study. Thanks to a system of formal and informal institutions adapted to new relationships in the area of production and consumption, we can build systemic conditions for intervention in external effects, including conditions for their price and cost internalisation.

A **contract** is an agreement between parties (contractors). It varies according to the degree of mutual links between the contractors. In a general sense a contract can also be a non-formalised memorandum. Not only exchange agreements, but also memorandums/commitments of entities independent of one another to perform common and appropriately co-ordinated actions are the institutions of contracts. The main premise of a contract is to reduce transaction costs, for instance by the reduction of uncertainty.

How does the above-presented concept of transaction costs relate to the functioning of UFAs? Let us remember for the need of further deliberations that local government units are the entities (organisations, as meant by the concept of TCs) which form UFAs. Therefore specific interactions occur within and between the units. First and foremost one should pay attention to the fact that a higher intensity of different transactions results from the essence of UFAs – as compared to other randomly delimited territorial units – and it justifies the opportunity to gain knowledge from the TC concept to improve the rationality of a given area's functioning. One can present arguments supporting the existence of a positive relationship between the value of a central city's potential, and hence the power of its impact on the environment, and transaction intensity. Let us differentiate between two situations. The first one is the concept of an UFA as an objective 'creation' in the previously presented sense (i.e. deprived of the co-ordinating entity); the other case is an UFA subjected to an arranged and appropriately negotiated 'supervision' in which a specific class of contracts plays an important role. It should be highlighted that the reference transactions take place in both cases. Their feature in the first situation is that the majority of transactions are concluded based on market rules, which entails uncertainty and a short-term

nature of the agreements, and also the fact that there are a large number of individual transactions. The latter case at least partly contradicts all the enumerated features of the first one. The limited framework of this study prevents the authors from presenting a wider context with regard to this issue. We will therefore limit our deliberations to one aspect of the 'issue', i.e. pay attention to two transaction characteristics pointed out by Williamson which determine costs: frequency and uncertainty (Williamson, 1998, p. 66 and further). They are both related to contracts as deliberate agreements/memoranda that bring benefits to all parties entering into the given agreement. However, it should be noted that a contract also creates specific TCs related to its conscious preparation followed by implementation supervision. The more repeatable the transactions are, and the more frequently they occur over a longer period of time, the greater the chance of a reduction of their connected TCs. This is related to, for example, distribution of some of the costs onto the entire cycle of the agreement being concluded. This is where one can see the value of the concluded contracts. In interventional territorial contracts not only the total balance of benefits and costs in a time context but also – and perhaps primarily – their spatial and substantial distribution in an UFA become the essence of an efficient agreement. Underestimating the spatial dimension is a source of conflicts and different social traps, as well as subversive behaviour of regional governments making up parts of a functional area. Consequently, a 'spatially blind' support policy often reduces the social effectiveness of management over a long period of time.

When it comes to uncertainty, the greatest dimension thereof most often applies to market conditions and opportunistic behaviour.[9] Reduction of uncertainty is among major premises behind executing a contract. Williamson differentiates between *ex ante* and *ex post* TCs of a contract being concluded (Williamson, 1998, p. 65). The first ones are the costs of uncertainty reduction, related to, for example, the storing and processing of information extending the knowledge about the subject of the transaction, and the intentions and trustworthiness of the parties to the contract, as well as the costs of negotiating the contract terms. The *ex post* costs include the costs of disputes, settled amicably or in court, concerning a non-performed contract or partly non-performed contract and the costs of monitoring implementation progress. It can be easily noticed that a reversely proportional relationship occurs between the contract parties. 'Saving' on the *ex ante* costs increases the potential costs of uncertainty in the future, and thus generates the risk of an increase in the *ex post* costs. In a certain sense it can be stated that under specific institutional conditions the total of both cost groups of a fixed transaction is constant. Therefore the core of the issue lies in the questions of whether it is possible, under a fixed level of the *ex ante* costs, to reduce the *ex post* ones, or whether it is possible to reduce the first cost group for a set potential state of uncertainty (*ex post* costs)? The answers to such questions are positive. It depends on the deliberately formed institutional space fostering conditions for co-operation and building trust, as well as alleviating the asymmetry of information leading to a narrowing of the phenomenon of reduced rationality and securing the parties to the contract, and hence facing the fears of opportunistic behaviour.

The reasoning presented above leads to a very important conclusion: by creating relevant institutional instruments, including deliberate forms of contracts, it is possible to reduce the transactional costs of UFAs functioning and developing, as a territorial whole. It also makes possible the improvement of the competitive position of all entities developing within such an area. Public authorities can play an intervening role in reducing the level of any subversive game of the functional area's users (to eliminate social traps such as free riding, affecting increases in social trust and fostering the creation of club goods in such way).

[9] Besides limited rationality of behaviour, opportunism is an important premise in the concept on new institutional economy. See e.g. Williamson, 1998.

5. The concept of the network economy, the space of flows in relation to the formation of club goods

Cities able to generate a special new complex resource, i.e. the above-mentioned territorial capital, the essence of which can also be based on the concept of a club good, have become the drivers of the gradually polarising world.

The presently used term of 'flow economy' emphasises the surge in the dynamics and scale of flows affecting the functioning of the economy, including from the point of view of quality, especially within a system of storing and distributing resources, products and information. To use a certain paraphrase we can say that it is a new economic metabolism. That metabolism requires further and deeper identification. Its features include greater recirculation of products and waste and just-in-time operation. New generation logistics, and urban logistics in particular, are starting to play an increasingly important role in the 'economic metabolism'. At the same time we deal with growing discrepancies between flow streams and intrinsically inert spatial and social structures. Another phenomenon which has a positive impact on contemporary urbanised areas is a trend for the decreasing significance of the costs of overcoming spatial resistance using natural resources and semi-finished products. This process contributes to the fact that for many activities the spatial reach of an economic region based on demand end-costs actually gains a global nature. The literature describes such industries as territorially non-rooted. Paradoxically, globalisation of demand for products and services, unless a monopolistic situation occurs on such a market, means for companies an increasing significance of factors related to the place, but it occurs on the side of non-material resource supply. It is then worth noting that, alongside globalisation of supply for products and services, **the sources of competitive advantages of companies shift towards other, less mobile 'resource-based' location factors**, e.g. related to high quality labour force, human capital, creative culture, etc. The quality of the resources is conditioned by complex cultural and social relationships and features of spatial management guaranteeing high quality of life, diversification of the production and service domain, and the ability of the territorial system to recreate territorial capital. This thesis is confirmed by new geography research indicating that development has a focused nature (chimney-like, pointed) in metropolises and urbanised regions (the spike development concept) and is not evenly distributed in space (Kudłacz & Markowski, 2017).

Under the conditions of the contemporary economy (i.e. companies rapidly losing the competitive advantages – acquired as a result of technical and organisational progress – that they have over their competitors), the maintaining of a constant competitive advantage of companies and territories is becoming more and more determined by the quality of the environment and the regional (i.e. local) external effects accumulated therein.

It should be emphasised that transactions in complex network relationships have become an increasingly important source of external effects generated as club goods (Cornes & Sandler, 1986). They determine the competitive advantage of territorial cluster relationships. Consequently, the territorial balance of external effects will identify whether ambient factors (of a given functional area) have a positive or negative impact on the volume of business operations of companies. They will then affect the localisation behaviour of companies searching for permanent external sources of competitive advantages (Kudłacz & Markowski, 2017).

Referring to Samuelson's (1954) concept of public goods, which defines such goods from the point of view of consumption and not the supplier, we assume that such goods are characterised by the following two features: the volume of their supply is an argument of each citizen's utility function; their consumption by one consumer does not limit the quantity of the goods available to other people. Such features are fulfilled by free goods

and goods produced as a result of human activity, and are characterised by non-competitiveness and non-excludability (they are known as fully public goods and mixed goods).

A **private good** is characterised by the fact that a unit of such a good can satisfy only one consumer, while a **public good** represents the polar inverse against the first type. A pure public good is a good whose units can satisfy more than one consumer, and an additional consumer does not reduce the quantity available for others.

The **club goods mentioned in this study** can be defined as **quasi**-public goods **(**Markowski, 1999). In the light of the above-mentioned definition, social capital is a public club good. Its development is partly determined by a territorial system of institutions and organisations. An important activity of public authorities is increasing the quality and level of social capital. In the long-term perspective, establishing high levels of social trust provides a basis to guarantee network durability. This is a horizontal action, which can be used by all members of a market game, including the currently developing production and service clusters.

The concept of club goods helps to better explain the essence of territorial capital as a new qualitative development factor. 'New generation club goods' produced in functional areas are then manifestations and measures of the territorial capital quality.

The globalisation of external effects and public goods

The process of globalisation of external effects with a public nature involves 'mixed nature effects', and different degrees of involvement of global and local producers and customers. This feature is important, as it determines the actual possibilities for interventions into flawed market relationships and the operation of agendas aimed at producing or eliminating external effects. The institutions which will be able to intervene in the effects at the global level can do that using specific mechanisms of soft co-ordination: agreements, treaties and memoranda. The problem is particularly evident in the case of external environmental process problems. There are known cases of problems with the implementation of national commitments made during global summits, e.g. in relation to CO_2 emission reduction. Similar essential problems occur when attempts are made to co-ordinate actions with states functioning in more formalised international structures, such as the EU. Theoretically one can assume that public effects with a global nature can be defined, although in practice an example of a fully public good will not be found.[10]

In the process of globalisation of external effects one should note that some of them undergo a stage of internationalisation, which is their formation by specific international clubs. This applies to financial systems, or actually the guarantee of the stability thereof, international legal systems, health safety, Internet safety, etc. Institutional systems – both domestic and global ones – definitely are not able to catch up with the processes of the glocalisation of public goods (*Public Goods* …, 2008, UNIDO).

Performing a more detailed analysis of public goods and negative public products with a global nature, one should conclude that such an either/or classification is a simplified approach. In the process of globalisation of external effects with a public nature we actually deal with external effects combining the global and local dimension, i.e. with 'glocal' effects.

With regard to the fact that glocal effects intrinsically involve a certain degree of exclusion and competitiveness resulting from the private or public costs of their internationalisation (price and/

[10] Mixed public goods, also called quasi-public goods, are meant as goods the consumption of which is related to the cost of their acquisition, i.e. related to covering some costs (price internalisation) or other costs related to utilisation (acquisition) which do not compensate the producer and supplier for the costs of producing the good (cost internalisation). The presence of internalisation costs of a good provides it with some features of a private good.

or cost),[11] acquisition costs are among the causes of a subversive game, or falling into social traps, such as free riding; this applies to both the using and supplying of public goods. Interventions of national states in the supply and consumption of public goods with a global nature also have a subversive nature. They turn towards creating alternative political external benefits for the generated public goods or the legal acceptance of negative external effects helping to gain competitive advantage at the expense of the environment.

External network effects

It is worth mentioning at this point a discussion held between economists, dating back to the 1980s and referring to external network effects. The concept is related to specific markets of suppliers and recipients of products and services linked by a defined relation-based system, which can be computer- or telephone-based, or even identified by agreements and contracts (a loyalty system). The development of this concept and its application can be significant for the new paradigm of development policy adapting to new features of contemporary economy, i.e. network-based nature and enhancement of flows. Economists assumed that if there are external effects, those must be a result of market failure for network products. However, Katz and Shapiro (1985) and Lebowitz and Margolis (1995) indicated that within networks there are many external pecuniary effects which fall into the category of market mechanism operation and in a long-term perspective external effects with a pecuniary nature are subjected to spontaneous internalisation mechanisms under market influences, and hence they do not require public intervention. The situation is different when public authorities are the leading participant of a network. Then a contract-based intervention can be accepted (a public entity takes control of the network), in particular when the relationships are approached from the point of view of a public good essence. It results from that essence that external effects generated within the network, whether they are positive or negative, are subjected to **specific control of the club (i.e. network) members**.[12] Therefore the specific feature reveals that within the network there is a mechanism facilitating both price and cost internalisation of the emerging external effects on a contractual basis. Such cases require a specific approach to network structures. One should not consider interventions by means of the correcting of a relation-based market, but sensible improvement could accelerate the process of building the competitive advantages of such a system against competitors. This kind of intervention makes sense if we deal with a functional-territorial system, in which the majority of relation-based system participants recognise the relationship between the generated effects and location in the given functional area, and to each function of consumption and production utility we can allocate an external effect with a territorial address of the network participant.

We can note some issues resulting from this concept for the development of functional areas, including urbanised ones. The possibility of intervention in such a network will depend on the globalisation degree of producers and customers. The producer can be local and the customer global.

[11] Internalisation of external effects by a price system occurs when for products in the unit's environment there is a possibility of creating a market, which also means creating a price. Then, by means of obtaining payment for the obtained ambient products, a consumer-recipient compensates the sender-producer for the costs of their production. Internalisation through a cost system also occurs when consumers or producers use goods with a public nature, i.e. commonly available and localised optional goods. It is a well-known problem of reducing benefits from the consumption of the goods by the costs of overloading and costs of overcoming the space resistance to obtain a good (Markowski, 1999).

[12] One should note that the definitions of external effects assume that the volume of operation of an external effect sender is not controlled by recipients. If the recipient decides to perform control or if a different form of relationship, e.g. a contractual one, emerges between the sender and the recipient, we get to the definition of club effects (or quasi-external effects).

Geographical clusters of producers may occur or spatial concentrations of customers may exist within global markets, etc. There are many possible combinations and the dynamics of changes with regard to spatial reach are very high. Conducting a policy of development support requires good recognition of present and anticipated processes, a highly flexible operation and quick responses adapting to new situations. Unfortunately, when approaching the policy from the practical point of view, one can observe increasing contradictions between the features of contemporary development processes and an institutional-regulatory system. That decreases the effectiveness of policy. Sometimes an intervention does not match the actual needs and generates unintended secondary political effects, aggravating market dysfunction. Flawed public institutions which require new (efficient) action in a network system of globalised institutions have become an increasingly significant challenge of the present day.[13] The system has now entered the stage of a deep 'crisis'.

6. Summary

Observing the history of regional policy in Europe as a policy correcting regional disproportions of development processes, one can observe that it has always been a contract-based policy following the rules of conditionality enforced more or less eagerly. In the first period of support for different regions by the European states, the policy had a solidarity nature, equalising the income of public authorities to implement social objectives. With deepening integration and increasing polarisation among regions, as well as abuse of European resources to implement populistic goals and excessive wasting of such resources to invest in technical infrastructure, new criteria of conditionality were introduced and the criteria for expenditure control were described more precisely. In search of the competitive advantages of Europe, the territorial approach to development is very sound. In practice it was introduced into urban functional areas where administrative obstacles, the party-based nature of local governments, competing for income, etc, can be observed. The phenomena constitute serious barriers for building competitive advantages of development based on modern factors using human capital and territorial capital.

The territorial contract has a special role to play in supporting development in functional areas beyond the administrative borders of local government units, as it has a number of potential benefits: it fosters partnership, helps to build trust, and reduces uncertainty and risk for stakeholders participating in investments in development. If we assume that a functional area is a relation-based system able to develop quasi-public goods with a club nature, the identified entities which are members of the club system should become parties to the agreement (contract) with the public authority. They should, for example establish a territorial consortium as a system helping to control the generated club good, as a collective subject of the contract concluded, and also as a specific kind of public-private partnership, which needs to be defined in a process of partner preparation of the UFA's strategy for development, supported by a complex bill of benefits and costs. The specific agreement must not be based on the principles of an open tender for anybody willing to participate, as its purpose is to generate club goods with a public and not purely commercial nature.

The possibilities for increasing the value of the territorial capital of urban functional areas presented in this study could lead to a consolidated effect on the national scale. Among all UFAs metropolitan areas, particularly the ones with clear functions of regional and superregional impact, have a decisive role in generating growth effects. Nevertheless, functional areas with smaller scale centres should also attract the attention of development policy entities.

[13] We are still searching for the right name to reflect the new type of economy, relation- and network-based, where human capital developed in an interactive spatial and social environment of high quality plays the main role.

In Poland we have 39 cities with populations in excess of 100,000 people and 87 large towns with more than 50,000 inhabitants (together they constitute over 36% of the demographic potential of the country). Together with the surrounding areas of weaker or stronger impact, they are home to the majority of the production potential of the country[14]. Any systemically established improvement in the functioning of UFAs can bring noticeable increases in development dynamics, both the economic and social components. According to the authors, there is still latent development potential in UFAs. As described above, UFAs are strategic nodes of the contemporary economy flow networks. The concepts of network development suggest that public policy must not be limited to individual UFAs but needs to take a holistic approach, i.e. systemically covering the network of mutual connections, taking into account the existing structural hierarchy of UFAs,[15] which consequently may constitute an added value for the national level territorial capital.

Research on functional areas can apply up-to-date conditions regarding their situation and be approached considering predictable future conditioning. In the latter case, the currently observed megatrends can be worthy of attention. In our summary we will limit our deliberations to the three of them which seem to be significant for the future of UFAs:

1. Progressing globalisation, which can place large urban centres in a slightly different dimension (other functions),
2. Technological development and strengthening the role of cyberspace in the functioning of individual entities and their organised clusters,
3. Further blurring of city borders and urbanity.

Let us assume that by **globalisation process** one means the growth of the network of links between an increasing number of entities, which makes the situation of individual entities depend on megatrends rather than mezotrends. In the economic dimension, economic effectiveness in the general sense is the main indicator of globalisation, which provides a basis for market mechanism operation. To that end one can conclude that globalisation is of an objective nature as a result of independent vigorous processes in the economy. That is quite an important finding, as in combination with its essence it indicates that it is valid to talk only about adapting to creations and not affecting the globalisation processes (Hausner *et al.* 1998, p. 14 and further).

The above helps to identify potential consequences of the processes of progressing globalisation for the development of urban functional areas. Let us pay attention to only one of those. The aforementioned consequences are diversified according to the volume of the general potential of territorial unit development, with a clear preference for larger units. That is evidenced by strong networks of mutual connections between metropolitan cities, which by discounting the effects of co-operation, including the flow of innovation signals, develop much more quickly than smaller units. In Castells' (2000) terminology of society theory, on the one hand they are global (strategic) nodes of flow space but on the other hand they can perform the function of local nodes transferring the discounted effects onto nearer and farther environment (their contact functional area and network of nearby towns) by skilfully designed spatial management. Such effects can also be found in smaller urban areas; however, the effects are smaller, according to the size of the areas.

It can be almost taken for granted that continuously accelerating **technological development** will contribute to changes in the users' perception and experiencing of the value of functional areas spatial management. A high speed of changes limits the possibility of indicating specific and expected achievements of technological development. The

[14] According to estimates made by the authors, the functional areas of cities with populations in excess of 50,000 are home to more than more than two thirds of the development potential of Poland.

[15] According to common understanding the concept of structural hierarchy applies to situations when 'the smaller is included in the bigger'.

aspects which can be easily indicated apply to the importance of virtual mobility in all functioning areas of enterprises. Consequently, we will see a gradual reduction in the importance of some infrastructural management elements and increases in those of others, e.g. those which handle flows in cyberspace. We will also observe a growing significance of such forms of spatial management, which have to be more and more adapted to the properties of smart cities. The vision of urban functionality, as mentioned in this study, will be re-evaluated significantly, especially in the part concerning the accessibility of various spatial management elements.

Blurring of the borders between a city and its closest surroundings is a general feature of development, although it is more evident in less developed countries with a relatively high level of development dynamics. Poland is among such countries, therefore the aforementioned process has been evident for some time now and is expected to continue. The blurring of borders occurs in all dimensions of development: economic, social, cultural and spatial and is a result of more vigorous (market) processes rather than mechanisms of a regulatory intervention. As a result, the operating efficiency of policy entities is decreasing[16] as they limit their activity to administrative borders of territorial units. The presented process on the one hand emphasises strengthening of UFAs as an objective category with previously outlined characteristics but, on the other hand, it is testimony to the importance of designing cohesive spatial management systems going beyond administrative borders of the central city, or even reinforcing the designing of such systems. It requires co-operation between a number of autonomic territorial units which together form appropriately organised functional areas.

[16] In the sense of their efficiency and effectiveness.

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