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## ON EUROPEAN METROPOLISATION SCENARIOS AND THE FUTURE COURSE OF METROPOLITAN DEVELOPMENT IN POLAND

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### Abstract

In this article the future evolution of the settlement system of Poland is discussed using selected scenarios anticipated for the European space. For this purpose two alternative reference scenarios are outlined and examined in the light of some specific characteristics of Poland's metropolitan development. The questions posed in this context involve the sustainability of policy assumptions concerning the role of cities of various size categories, as well as factors that could lead to a discontinuity in the trends observed in metropolisation.

### Key words

metropolitan development • European space • reference scenarios • trend reversal

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### Introduction

Poland's settlement system has undergone a considerable evolution during the past two decades, involving both its functional and morphological dimensions, changes that can be subsumed under the category of metropolisation processes (Korcelli 2008). The development of specialised tertiary activities, together with the on-going reconstruction of the built environment in the major urban centres, leads to their gradual transformation into metropolitan cities

(Parysek 2005). Parallel to this, urban agglomerations are being transformed into metropolitan areas in the process of residential, as well as commercial suburbanisation, and growing functional integration at sub-regional level (Liszewski 2010). Finally, at the national and regional scale, the phenomenon of concentration in the urban system which may presage the formation of metropolitan regions (Korcelli-Olejniczak 2012, 2013) is documented by a reorganisation of functional linkages, including spatial clustering of specialised economic activities

(Domański 2004), and a declining position of smaller urban settlements as local service centres (Heffner 2008).

These trends provide for a phase-shift in relation to the relatively recent advent of metropolitan-type development in Poland and are generally congruent with those observed elsewhere in Europe. Hence, they are generally expected to continue within at least the mid-term perspective, i.e. the next 15-20 years. At the same time, spatial policy documents at the national and regional level (KSRR 2011; KPZK 2012), see an important role for all cities in the future spatial organisation of the economy and the society. There are two basic questions that arise in this context. Firstly, can these policy assumptions be considered sustainable, in particular under an imminent future decrease in total population (GUS 2008); and, secondly, are some substantial factors to be identified that may lead to a discontinuity and, ultimately, a reversal of the metropolisation trends in the longer term.

These questions are discussed in the article, which presents the authors' perspective on the subject, preceded by an overview and re-interpretation of relevant concepts and forecasts. In the following section, a retrospective view is taken on the future evolution of the settlement system in Poland while referring to some earlier studies and policy documents. In section two selected scenarios of metropolitan development seen from the European level are examined. Section three focuses on relations between urban settlements of different size categories. This is followed, in section four, by an outline of two reference, or benchmark scenarios, which are based on assumptions concerning the role of alternative external factors. In section five these reference scenarios are examined in the light of selected specific features of Poland's metropolitan development. The concluding paragraphs point to some elements that are underrepresented in existing future-oriented studies in the field, including those that are useful in developing spatial policy.

## The settlement system in Poland in the light of future-oriented studies

The notion of metropolitan development was first introduced in studies of Poland's urbanisation in the early 1970s. Leszczycki et al. (1971) identified "the phase of metropolisation of urban settlement patterns" as the one that follows the agglomeration phase. It was anticipated by the authors that the latter phase would continue until the end of the projection period, i.e. the year 2000, and bring about the consolidation of the urban network into a system of 'nodes and belts'. In a parallel study, Dziewoński (1971) saw the future pattern of human settlement in Poland in the form of a constellation of some 30 urban regions centred upon major cities of at least 150,000-200,000 inhabitants each. This was assumed to be an effect of increasing spatial mobility of the population, the phenomenon recognized by McKenzie (1933) as the prime factor of metropolitan development and the emergence of metropolitan regions. The studies in question contributed to the adoption of the spatial planning doctrine of that time which, in contrast to the previously dominant policies limiting the growth of large-cities, emphasised the social and economic benefits of 'moderate polycentric concentration' and a more rational approach to the allocation of investment resources, which stimulated urban-rural, as well as inter-urban migration flows.

These early hypotheses on the future evolution of settlement patterns were not given a chance to stand the test of time. During the 1980s, the period that led eventually to the collapse of state socialism in Poland, large cities and urban agglomerations were more deeply affected by the economic and social crisis than smaller urban settlements. This may be interpreted as a discontinuity in the urbanisation process, which prevented an earlier manifestation of the incipient metropolitan phenomena.

The theme of future settlement patterns was again placed on the research and planning agenda in conjunction with the development of the National Concept of Spatial Development

Policy (KPPZK 2001), as well as its updated version (ZKPZK 2006). These policy documents emphasised the role performed by the major cities and metropolitan areas in the system of spatial organisation, and pointed out their prospective position as 'europoles'. They also took the observed processes of socio-economic polarisation and metropolisation of Poland's territory largely for granted. These trends were actually extrapolated into the future.

According to one of the background studies, under the projected decrease of the total population of Poland (by some 4 percent between 2002 and 2025), the metropolitan areas would still be expected to grow in absolute terms at the expense of small towns and rural settlements (Korcelli 2005). The concentration of population and economic activity in the metropolitan areas was in fact foreseen to continue into an even more distant future. Their spatial expansion would be accompanied by a gradual deterioration of inner-city areas and the depopulation of a large part of the remaining national territory (Eberhardt 2007).

The new edition of the Spatial Development Concept (KPZK 2012) focuses on functional integration of the national urban system. This goal is to be achieved by developing linkages between the major metropolitan cities, while, at the same time recognising the role of other regional, and also sub-regional centres as secondary poles of growth in the system of spatial organisation. Rather than accepting territorial expansion of metropolitan areas as an inevitable, if not a positive phenomenon as the earlier concepts did, the emphasis is here put on controlling urban sprawl. Prospects for reconciliation of these policy objectives with observed metropolitan development trends are discussed later on in the article.

### **Future metropolitan development: the European level**

Following the conclusion of the 'counterurbanization' debate (Champion 1992; Cheshire 1995), the mainstream of international urban studies in Europe shifted towards

questions and issues pertaining to inter-urban competition and the role performed by metropolitan cities and metropolitan areas in national, as well as Europe-wide, socioeconomic development (ESPON 2004). Owing to the link to globalisation phenomena, further advancement of the metropolisation process is typically taken for granted even if its spatial forms and territorial extent should assume different patterns (ESPON 2007). In some recent studies, however, the projection of presently observed trends into the future is either not really considered, or is presented as one out of several alternative development scenarios. The former approach is followed in the PR6 PLUREL project (PLUREL 2007), while the latter is applied by Kunzmann (2008). These two contributions are discussed in detail below. Reference is also made to some relevant research assumptions, as formulated in the ESPON project on Territorial Scenarios and Visions for Europe (ESPON 2012).

The PLUREL projections of future settlement patterns in Europe are derived from a set of more general scenarios presented in an IPCC report on the spatial effects of global climate change with a mid-21st century perspective. These scenarios are based on a broad spectrum of underlying processes, including environmental, social, political, and technological factors. The A1 ('high-tech') scenario assumes a considerable drop in the cost of energy as a consequence of the introduction of new technologies, with a resulting increase in population mobility in spatial terms. It also assumes rapid diffusion of innovations related to the expansion of the ICT sector, as well as overall economic growth being aided by significant progress in international collaboration. According to this scenario the metropolisation processes accelerate. City labour markets extend their territory owing to a declining friction of space, even if some commuting becomes replaced by teleworking. This leads to an expansion of peri-urban zones of mainly dispersed, though in some part also nucleated, settlement. Some inner-city areas are affected by a deterioration of the urban fabric, including the

infrastructure, as a consequence of population outflow. Simultaneously, owing to the growing productivity of agricultural land, rural areas gradually evolve into landscape parks. At the level of the urban system, a concentration of highly-specialised, financial and corporate-control functions in a few mega-urban centres implies a loss of the relative importance of smaller metropolitan areas.

Scenario B1, the 'carbon-control world' scenario, stands largely in opposition to the one presented above. Here, the assumed rapid technological progress and the collaborative approaches creating favourable conditions for growing convergence in GDP per capita at international level are focused upon the rational utilisation of natural resources, in particular the already depleted oil and natural gas reserves. This situation implies the introduction of resource efficient technologies and a shift from the production of goods toward a service and information oriented economy. Taxation on energy consumption and pollution and the high cost of the development of clean technologies lead to high final energy and transportation costs. Development of public transport is promoted *via* heavy investments in infrastructure. Under such external conditions there is evolution in the spatial economy. Production becomes reoriented towards local markets, and commuting is reduced as a consequence of the changing location preferences of residents as well as firms and institutions. This in turn leads to the emergence of compact urban forms and a clustering of settlement in peri-urban and rural zones. The more peripheral, sparsely populated areas serve mainly as protected nature reserves, while they undergo further depopulation and an outflow of economic activities, except for those related to recreational functions.

According to the A2 'extreme water' scenario, the technological progress is less pronounced, while economic development tends to be slower and strongly differentiated in space. The process of global warming constitutes the primary factor of change. In the economically advanced countries and regions, with their efficient systems of administration

and planning, effective adaptation strategies are applied so as to mitigate the impact of natural disasters upon economic activity and human settlement. Elsewhere, the instability of ecosystems brings negative consequences, which include a contraction of functions that are vital to some cities and regions. This may in the longer run result in the disintegration of settlement systems at a local and regional scale. In arid zones the depopulation process accelerates. Europe is facing an inflow of rapidly swelling numbers of 'environmental refugees' from less developed countries.

This element is also present in scenario B2, which is built around the notion of 'social fragmentation'. Here, spatial socioeconomic polarization has its source in the process of population ageing which generates immigration and gives rise to growing distrust among social groups. Tensions arise in relation to the inter-generational financial transfers issue on the one hand, and the position and interests of various ethnic communities on the other. Social disintegration finds its reflection in spatial divides. The inflow of immigrants of non-European origin leads to an increasing social polarization within the urbanized areas. The older, native population with strong voting power mainly occupies the suburban zones, as well as 'green enclaves' located in more distant, peri-urban areas, whereas inner city districts are the domain of younger people, including immigrants. Smaller urban settlements perform service functions for both the surrounding rural areas and the residential communities situated nearby.

Like their predecessors, the IPCC global development scenarios, the PLUREL scenarios of future urbanisation patterns in Europe are built upon the assumed dominant role of specific prime factors. These external forces are made responsible for the departure of the development trajectory from observed development trends. One should notice, however, that in the case of the A1 and B2 scenarios deviations from the trend appear to be relatively smaller than in the A2 and B1 scenarios. In fact, according to the two former scenarios, future settlement patterns and processes

in Europe would be increasingly adopting features that are recognized as representative of the North American type of urban development.

Among other assumptions introduced in the individual scenarios, those pertaining to the role of spatial policy, its environmental aspects in particular, are of great importance. This especially concerns the B1 scenario, which postulates policy coordination on a global level. Conversely, in the case of A2 and B2 scenarios the formulation and implementation of policy objectives is not integrated horizontally. Indeed, the development goals adopted tend to be mutually competitive, if not contradictory. It is also notable that the relatively optimistic visions of the future presented in the A1 and B1 scenarios are accomplished under contrasting policy regimes, and are based upon quite different spatial patterns of human settlement. In fact, the future settlement pattern which is envisioned in the B1 scenario can be interpreted as a turnaround of observed metropolisation trends, and, at least in relative terms, a return to the so-called traditional settlement pattern of compact cities and nested, hierarchical urban networks. The main external factors of change include the end of the era of low energy costs, as well as the recognition of collectively shared values and goals based on the principles of sustainable development.

A departure from the observed metropolisation trajectory is also contained in 'Slowpark Europe', one of five alternative futures for the European space conceptualized by Kunzmann (2008) and presented on the occasion of the 10th anniversary of 'Nordregio' in Stockholm. Unlike the PLUREL scenarios, which focus on technological, environmental, or social factors of universal character, the Kunzmann's future development scenarios are driven by alternative assumptions concerning the positioning of Europe, its economy in particular, in a broader, intercontinental and global context. In the case of 'Slowpark Europe' such an assumption concerns a gradual decrease in global competitiveness of the major European economies. This would be manifested

in a progressive delocalisation of industrial production, followed by a large-scale outflow of jobs in advanced service sector activities to lower labour cost countries – a massive outward drift which could not be compensated for by the productivity growth and increasing investments in the high-tech sector at home. The resulting, long-lasting standstill of economic growth rates at zero level, or even below, would be felt first of all in Europe's large cities and metropolitan areas.

The loss of competitive position on global markets within advanced, high value-added industrial and service branches would lead to a reorientation of Europe's external exchange, its export assets, towards greater utilisation of the unique characteristics of European space, the historical and cultural heritage in particular. A crucial component of this heritage dwells in Europe's small and medium sized towns with their cultural richness and architectural diversity, traditional spatial layouts, and the integration of the modern with the historic fabric. These smaller urban settlements, attracting the multiplying numbers of visitors and students from around the world, become the true exponents and carriers of European civilisation, objects of encounter and education in the field of history, culture and lifestyle.

The growing importance of local assets in social and economic practice would be reflected in a rediscovery of the role of linkages of local and regional scale. At the same time, the declining position of European metropolises within global city networks and in the global economic circuit would imply a weakening of interdependence and a diminution of flows at higher levels of the urban hierarchy. At the same time, the process of population ageing when accompanied by stagnating incomes and reduced consumer power would imply a diminishing of the spatial mobility of the population, including less daily car mobility and an end to unhampered expansion of urbanisation within suburban and peri-urban zones. Forests and landscape parks would cover a considerable part of the rural areas, especially the sparsely inhabited

peripheries. The settlement structure would in a sense evolve towards spatial and organisational patterns characteristic of the pre-metropolisation era.

The 'Slowpark Europe' scenario should be interpreted as one with a distant time horizon. As to the mid-term perspective, it is the 'Business as usual', i.e. the trend scenario which remains the focus of Kunzmann's analysis. As he argues, the recently observed acceleration of metropolisation processes allows us to expect their prolonged dominance in the future. At least until 2020 spatial development in Europe would continue to concentrate in large, as well as some smaller metropolitan areas. This development reflects the dynamics of global market forces and the prevailing neo-liberal economic policies. The national capital cities in particular, and in the case of large, populous countries also their major regional capitals, would function as the hubs of European infrastructural networks and the poles of attraction for specialised economic activity and qualified, mobile labour resources. The metropolisation processes are promoted by political actors at both city and national levels who aim to strengthen the international competitiveness of large urban centres, and, indirectly, of the countries in which these cities are situated. This kind of contest of luring capital investments, talent and creativity – a 'metropolitan fever' as it is labeled by Kunzmann, is articulated in the form of a 'parade' of ambitious construction projects as well as in the organization of large-scale sports and cultural events, attracting visitors and focusing mass media attention.

According to the trend, i.e. the progressive metropolisation scenario, the mean range of commuting-to-work will tend to grow, both in terms of physical and time-distance. And, when it extends beyond an economically and politically acceptable limit, new rapid public transport lines will allow for further territorial expansion of metropolitan labour markets. At the inter-metropolitan level, the development of high-speed railway networks would contribute to an augmenting of inter-metropolitan linkages at the European scale, thus

adding to the concentration of population, economic activity and public services within metropolitan areas.

While acting to diminish development gaps at European scale, these processes and phenomena would strengthen the polarisation trend at lower spatial levels. Its negative aspects will increasingly be felt in peripheral areas. Three types of such areas, as identified by Kunzmann, include European peripheries, metropolitan peripheries, and inner-metropolitan peripheries. The metropolitan periphery is defined as those areas that are situated at a distance of more than 100 kilometres from a metropolitan city. Such areas are typically characterised by limited labour market capacity and relatively poor accessibility to specialised cultural, educational and health services. They would continue to suffer a negative migration balance, especially in the category of young and skilled persons. Still, some areas of this type, mainly those with unique environmental assets, will undergo a specific gentrification process by becoming sites of new technopoles or 'hedonistic second home regions'.

Conversely, the inner-metropolitan periphery covers those parts of cities and metropolitan areas that function as retreats for people and businesses who are victims of the globalised market economy, as well as for ethnic minority groups. What the trend scenario foresees is a further growth of intra-regional disparities and a continuing extension of depressed, inner-metropolitan areas. At this point it is appropriate to note that the future of metropolitan peripheral areas, including the inner peripheries is one of the crucial, yet relatively neglected, issues concerning the evolution of Poland's settlement system.

Yet another variant of a 'counter-metropolitan' scenario originates from the recently concluded ESPON project on ET 2050, Territorial Scenarios and Visions for Europe (Doucet 2012; ESPON 2012). In that enquiry an attempt was made to include the extensive field of possible future trends concerning society, the economy, and the natural environment

within three, so-called exploratory, scenarios (in addition to the baseline scenario). These scenarios are conceived in such a manner as to lead to the formulation of an integrated, internally coherent vision of the European territory in the mid-21st century – its dominant characteristics as well as its internal differentiation. The base-line scenario, with its role of mid-term projection, is considered to represent a development drift (rather than a most likely future), as it does not introduce any new major technological change or economic and political reforms, and hence fails to fulfil future development goals which are postulated in the plethora of EU programmes and documents. What it presents is in fact a continuation of metropolisation processes as supported by progressing globalisation, an increase in the share of the service sector in the economy, and a differentiation and further deregulation of labour markets. Under such preconditions metropolitan areas would continue to be the main destinations for capital as well as immigration flows.

The three exploratory scenarios are identified as: 'Europe of the Flows', 'Europe of the Cities', and 'Europe of the Regions', respectively. According to the first scenario, future economic development and population growth would mainly be focused on the major metropolitan areas (MEGA) and inter-metropolitan corridors. This trend will be stimulated by investments in advanced transport infrastructure, and in research and development activities, following the directives of the Europe 2020 programme. The second scenario foresees a concentration of growth factors in some 250 large, territorially compact cities of national and regional importance, centres of science, creativity and entrepreneurship. This would imply the preservation of a polycentric structure of urban systems at both a national and macroregional levels, in accord with EU policy on territorial cohesion.

Insofar as these scenarios can be interpreted as a stronger, and a weaker version of the progressing metropolisation phenomena respectively (the rationale for the assumed

compactness of urban forms is not really specified), this trend is first discontinued, and then reversed, in the 'Europe of the Regions' scenario. Following this scenario, the settlement pattern that emerges in the mid-21st century is one in which urban and rural areas form a regionally differentiated mosaic. Small and medium size cities function as focal points of self-contained, ecologically balanced regions. Their development is accelerated by migration inflow (of skilled personnel, as well as retirees) from the decentralising, large urban centres. Local markets and local economic links become of increasing importance. As a result, the existing imbalances at intermediate and lower levels of the urban hierarchy are reduced. Such an evolution is to some extent enforced by external factors of a global dimension, including increasing energy costs, climate change and population ageing. It is also supported by policies that emphasise endogenous development and the allocation of public goods based upon the principles of territorial cohesion.

### **Small and medium sized cities as potential development foci**

If, as illustrated by some of the urbanisation scenarios discussed, the dominant metropolisation trends were to discontinue in a more or less distant future, such a change would most likely be marked by a renaissance of small and medium size towns. Only such cities, when interpreted as a broad category, can offer a viable alternative to the metropolitan centres not exclusively in terms of better access to environmental assets, but also as suitable locations for specialised public services and knowledge intensive economic activities.

Yet, relatively little can be found in both scientific studies and the policy discourse on the futures of European space that pertains directly to small and medium sized cities – their morphology, prospective new functions, population composition, and mutual linkages. Such urban settlements are typically presented in opposition to the

metropolitan areas, a poorly differentiated urban strata, a sort of residuum of the settlement systems. This concerns both those scenarios that depict a further extension of observed metropolisation trends, as well as those in which their future persistence is questioned. This is despite the fact that a number of recent comparative studies are dedicated to the role of small and medium sized cities (SMEs) in Europe (see: ESPON 2008). Nonetheless, also in the light of empirical, in particular spatial, policy oriented studies such cities tend to be considered secondary parts, or sub-components, of the spatial and functional structure of settlement, which is shaped by the dominant metropolisation factors (Gloersen et al. 2007).

Following these approaches, the functional classification of cities, based traditionally on the analysis of the occupational structure of the population, has largely been replaced by spatial accessibility schemes in which the role of a small or medium-sized town is determined by its position *vis-à-vis* the nearest metropolitan centre (or centres). The type of relationship depends on the town's situation:

- within a metropolitan area,
- at the metropolitan edge, i.e. its outer ring,
- between two metropolitan centres, but beyond their daily commuting range, or
- in a region's (or country's) peripheral zone.

According to the 'continuing metropolisation' scenarios, towns in the first category tend to experience rapid development by attracting new residents, economic activities and public services from both the metropolitan core, and inter-metropolitan, urban and rural areas. This is also true of urban settlements in the second category, which can frequently make use of their convenient accessibility with respect to major transportation infrastructure (airports, motorway junctions), as well as to open space of high environmental quality. In the case of small and medium sized cities of the third type a characteristic, although not a universal, phenomenon is migration outflow and a loss of some specialised functions. Finally, in the peripheral areas, typically affected by population ageing and general

depopulation trends, the settlement network undergoes a concentration process which involves a gradual erosion of the economic base of small urban settlements, local service centres in particular.

An alternative development pattern is the one in which small and medium sized cities succeed in recapturing the important position in the system of spatial organisation of settlements at both local and regional levels which they held prior to the advent of the era of metropolisation. It is not entirely clear, however, how such a potential change should be measured. The application of net migration gain for the purpose (Geyer 1996) does not solve the problem of the cities' differentiated position, both spatial and functional, within the settlement system. Instead, the following two criteria can be proposed for a trend shift in favour of small and medium sized towns:

- change from a positive to a negative relationship between the value of the net migration rate and the distance from a metropolitan centre, and
- change from a positive to a negative relationship between net migration rate and the population potential value.

By using this approach one can identify a difference between the process of spatial expansion of metropolitan areas (which involves a deconcentration of population and economic activity), and a demographic revival of small and medium sized towns that may also imply their functional recovery.

Can such a reversal of observed urbanisation trends be judged as likely, or at all feasible, within a time span of several decades on the basis of state-of-art knowledge relating to the development of human settlements? The phenomenon of 'polarization reversal' has undoubtedly some theoretical foundations (Friedmann 1967), supported by empirical evidence (Geyer 2002). Nevertheless, it has mainly been identified with an early phase of urbanisation marked by the formation of regional and national urban systems. In the case of developed countries, with their dense networks of inter-urban interactions and well-articulated urban hierarchy,



some indications of this phenomenon, including net migration losses in the case of some major metropolitan areas, were registered during the 1970s and the 1980s. These observations served as a basis for the well-known 'counterurbanisation' hypothesis (Berry 1978). While the reliability of this concept was subject to scientific debate, the presence of discontinuities on the trajectory of metropolitan development has never been challenged. Hence, such discontinuities may also appear in the foreseeable future as a consequence of an intervention of economic and demographic processes.

The secular decrease of relative travel cost (and absolute travel time) is normally referred to among the economic, though in fact mainly technologically determined, factors of settlement evolution. By allowing for greater spatial mobility this trend leads to a concentration of population and economic activity in large cities, together with a territorial expansion of metropolitan areas. In accordance with this principle, a critical, long-lasting increase in energy costs may cause a trend turnaround, i.e. a halt of metropolitan development, with a subsequent revival of small and medium-sized urban settlements. This is exactly what some of the future urbanisation scenarios propose.

Such an argumentation, while referring to general rules concerning economic and technological change, requires the *ceteris paribus* assumption to be used with regard to a number of more specific factors that impact upon patterns of spatial development. Among these is the organization of the production system (Storper 1997). Its growing complexity, as observed over time, can contribute to an increase in unitary transportation costs which, however, may not prevent a further concentration of economic activity in space owing to an intervention of other agglomeration factors, including those related to employees' skills and information flows. Therefore, depending on specific conditions, the basic economic forces may tend to support spatial concentration, or spatial deconcentration of settlement, and also take

a different direction at various spatial levels as well as periods of time.

The demographic factors of urban change are of a diverse, partly rather speculative, nature. In general, a positive relationship exists between population growth, population mobility and rate of urban development (Alonso 1978). Insofar as the impact of the contemporary process of population ageing is concerned, the evidence tends to be unequivocal. On the one hand, it is frequently argued that an increasing proportion of the population being elderly, with a resulting contraction of daily mobility, implies the development of more compact urban forms. At the same time, the phenomenon of the migration of the elderly and the related growth of ex-urban retiree communities seem to sustain present trends towards increasingly decentralised patterns of metropolitan development.

One should also briefly consider the long-term consequences of the spatial polarisation of the population by age which can appear under the migration regime now prevailing. Owing to an accumulation of the elderly population within non-metropolitan areas (including small and medium sized towns, as well as rural areas), their out-migration potential becomes gradually dissipated. This may theoretically unveil a migration turnaround, whereas metropolitan areas, with a relatively younger and more mobile population, start to experience net migration losses. For such a change to take place, however, both the choice of residence and the location of economic activity would have to be increasingly driven by what Geyer (1996) defines as an environmentalism perspective

## Two alternative reference scenarios

As demonstrated by the previous discussion, there is a wide field for speculation concerning future urbanisation and the main forces of urban change in Europe. It is the very nature of scenario-based studies which makes it possible, especially when a distant time horizon is chosen, to abstract from a number

of boundary conditions that otherwise need to be respected in the analysis. In this section the arguments so far presented are consolidated in an attempt to draw an outline of two alternative urban futures for Europe – the reference, or benchmark scenarios, against which Poland's evolving urbanisation patterns could be compared.

These scenarios are conceived in a manner designed to represent the authors' views on two questions. The first one concerns the most likely future development path on the provision that no negative factors of critical importance intervene. The answer is a basically conservative scenario, one that somewhat diverges, however, from current trends. The second question focuses on the identification of preconditions for a metropolisation turnaround to occur in a foreseeable future. In that case the scenario here outlined highlights the possible long-term consequences of the phenomena, which are currently observed, albeit on a still limited scale.

The former direction of change can be defined as a scenario of a continuing, but decelerating, metropolisation process, or, a metropolitan containment scenario. The stagnation of the total population, together with progressive population ageing and relatively low rates of economic growth, correspond to a situation where the population mobility level and migration flows reach stability, while the settlement systems, providing for short-term fluctuations, tend toward an equilibrium state. In such a situation the attracting power of the large cities and metropolitan areas, stemming from their roles as centres of specialised services and as transportation hubs, is compensated for by the comparative advantage of smaller urban settlements as well as rural areas in terms of environmental and social assets. At the global level, the European metropolises succeed in retaining their competitive positions, especially in the domain of the knowledge-based economy and cultural functions, but also in the domain of corporate control. In addition a number of small and medium sized cities are going to maintain, if not upgrade, their reputation

as university, medical, tourist and convention, and also industrial and technology centres of global renown.

An alternative future, one represented by the scenario of metropolisation turnaround, is not related to a decline in the role of Europe's major cities in the global economy, as predicted by Kunzmann in his 'Slow-park Europe' scenario. Neither is it seen to result from the implementation of proactive and well-coordinated policies aimed at territorial cohesion, rational use of energy and protection of environmental assets, as assumed in PLUREL's 'Peak Oil', and in ESPON's 'Europe of the Regions' scenarios. One can indeed share Kunzmann's scepticism concerning the ability of spatial policies to withstand the pressure of global market forces. Here, the counter-metropolisation phenomenon is reflected by a rapid decline in living conditions and a widespread disintegration of the social fabric within large urban areas as a consequence of a massive, partly uncontrolled, population inflow from outside of Europe (i.e. North Africa, Middle East or still other world regions). This would give rise to the formation of a new, both spatially and socially polarized settlement pattern, one that was in fact closely depicted in PLUREL's B2 – 'Social Fragmentation' scenario. Such a scenario has to be treated as rather unrealistic in relation to the time span of the next two or three decades. When considered in a more distant perspective, its possible preconditions might be identified with population ageing and growing institutional instability within Europe, though perhaps primarily with social and economic processes as well as political events taking place elsewhere.

## **Poland's metropolitan development and European-wide trends**

In an attempt to reinterpret the two reference scenarios discussed above within the context of Poland's metropolitan development, one has to first enumerate some specific features of the national settlement system which constitute the legacy of the past, but also reflect the

present state of the economy, society and the natural environment.

As mentioned above, some early symptoms of metropolisation phenomena, including the formation of city-regions, could be noted in Poland in the 1970s (Wesołowski 1971). Nonetheless, their full-scale arrival can be associated with the systemic transformation of 1989-1990. Hence, in comparison with West European countries (to which the scenarios mainly refer), there is a time lag of several decades in this respect. The delayed onset of metropolitan transition finds its expression in an unbalanced, incomplete structure of metropolitan functions of the main urban centres. It is also reflected by a spontaneous, largely uncontrolled suburban development (Gutry-Korycka 2005), with land use conflicts in the suburban and peri-urban zones. While the role of traditional urban-rural dichotomy tends to decline, there is a growing socio-economic polarisation between metropolitan and non-metropolitan areas (Domański 2008). At the same time a still high share of rural settlement may suggest a longer future continuation of the metropolisation process, or at least some of its phase shifts, with an intensity that might vary, but remain at least as high on average as today.

How then should the scenario of continuing, but decelerating metropolisation be transposed onto the future evolution of the settlement system in Poland? In the situation of an initially stagnant and later diminishing total population such a scenario implies some flattening of the system's hierarchical structure. The growing proportion of specialised knowledge-intensive industries and services in the national economy works in favour of the concentration of population and economic activity in metropolitan areas. This takes place at the expense of small and medium sized cities – in particular those, which gained the status of new industrial centres during the period under state socialism. At the other end of the urban hierarchy, the concentration of farmland ownership, and the depopulation of peripheral rural areas are among factors that undermine

the position of those smaller towns that have traditionally performed the role of local service centres.

Limits to the spatial concentration of population and the settlement network, which in the scenario considered here are represented by equilibrium between economy-driven and environment-driven locational factors, may be found in the case of Poland's urban system assuming the continuation of the existing, three-tier administrative system. This system constitutes an anchor stabilising the position of cities at two levels of the administrative hierarchy, namely those acting as centres of 'voivodships' and 'poviats' (it does not apply to 'gminas', i.e. those settlements acting as centres of municipalities, as these units would most likely undergo a selective consolidation process). The abolishment of the 'powiat' level, sometimes postulated as a pro-efficiency measure, would undercut the functional basis of a number of medium-sized towns and bring about a definite acceleration of the metropolisation process. Another stabilizing factor is of a demographic nature – not so much the anticipated contraction of the total population number, as the phenomenon of population ageing. As a consequence of the forecast increase in the share of the category elderly (from 13.5 to 31.0 percent in the 65 years and above age group between 2011 and 2050, according to the EDDS 2012), the level of spatial mobility of the population may markedly decrease. This would pertain both to internal and to international migration, as well as to daily commuting, and would hinder an unabated expansion of the area of metropolitan residential and labour markets.

From this interplay of different factors one should not draw a conclusion about a future reversal of the trend to metropolisation, i.e. a deconcentration at the level of the settlement system as a whole, although a slackening of metropolitan development dynamics appears to be a rather likely trend within the next twenty years or so. During such a period, however, this process may bring about at least a relative decline, both regarding

population numbers and the functions performed, for the majority of small, and in particular medium-sized, cities. This tendency could actually be more pronounced than the one that has been observed in some other European countries. This would be a consequence of the lack of a sufficient basis for local endogenous development, both in terms of the conditions of the built environment and of human capital resources which have become depleted due to the long-lasting outmigration trends. Although there are some indications of an emerging preference among professionally active, middle-class representatives to choose a small town or rural community beyond the metropolitan ring as a place of residence (Mach & Sadowski 2011), this phenomenon is mainly restricted to specific, environmentally attractive zones. More importantly, there seem to be limited prospects within the next few decades for a notable deconcentration of highly specialised functions from the main cities to smaller urban centres within metropolitan areas, as well as for a diffusion of economic spread effects towards non-metropolitan areas. These are the basic prerequisites for the development of polycentric metropolitan forms as well as for the emergence of a more balanced, functional, complementarity-based pattern of economic and social interactions at the level of metropolitan regions.

Such adjustments to trends are in fact postulated and formulated in terms of spatial policy objectives at both national and regional level. This gives rise to certain development dilemmas. One of these stems from a propensity, to be found in strategic policy documents, to grant development prospects to cities of all sizes and various functional categories. Thus, spatial policy goals as identified in the National Regional Development Strategy (KSRR 2011) include both a fostering of metropolitan functions of the main metropolitan centres, and creating conditions for the diffusion of development impulses to subregional centers, local urban places, as well as rural areas. A similar approach is applied by regional development strategies

which emphasize the role of subregional centres in territorial development. This, however, appears not to be feasible under demographic stagnation and the on-going metropolisation process. The concentration of population and economic activity in metropolitan areas creates a demand barrier which hampers the postulated up-grading of public services in smaller urban centres, including those that are attributed the rank of regional and sub-regional centres. A priority given to infrastructural linkages between the metropolitan cities (KPZK 2012) with the aim of strengthening their international competitive position may not contribute to the sustenance of city-region relations and the proclaimed endogenous development of non-metropolitan areas.

All reservations notwithstanding, one is allowed to conclude at this point that the scenario of a continuing, but reducing rate of metropolisation does represent an adequate point of reference for the assessment and monitoring of Poland's metropolitan development in a long term perspective. This is so with the provision that the phase shift related to the late arrival of this process is respected in the analysis. Conversely, a similar relevance is not offered by the metropolisation turnaround scenario, where the latter is interpreted in the way it was outlined in the previous section. There seem to be no sufficient grounds at present to identify factors that might lead to a far-reaching, social and physical disintegration of urbanised areas. Such a trend was in fact largely avoided during the early phases of the systemic transformation period when the whole social cohesion system was exposed to serious risk. As to external factors, for a number of reasons that are beyond the scope of this article, a massive migratory influx from abroad should not be treated as a realistic development within the foreseeable future. Although, according to recent demographic forecasts (GUS 2008), Poland may become a country with net immigration before 2025, this now appears to be rather unlikely. On the contrary; there are many indications (such as the process of family reunion) that the observed

pattern of international migration flows, involving a strong dominance of emigration, may continue with a high momentum.

Since emigration flows have their main origins within non-metropolitan areas, the existing international migration pattern can be perceived as a factor that accelerates the process of metropolisation of Poland's space. At the same time, however, while drawing on the total migratory potential of these areas, the labour-oriented emigration movement (which has become a readily available choice following Poland's accession to the EU in 2004) should be considered an alternative to internal migration, and its role may therefore be interpreted as restricting, rather than fostering, future metropolitan growth.

## Conclusions

It is a basic conceptual issue whether metropolisation should be viewed as a reversible process, or, similarly to urbanisation, a finite process. Two perspectives are both represented in the scenario-based studies on future settlement evolution in Europe, which form the background for the discussion on Poland's metropolitan development. Most studies assume a continuation of the metropolisation process with some divergencies from observed trends. Far-reaching changes in the trends, when hypothesised, focus on the role of external factors causing shifts in the location of advanced economic functions and human capital from major urban centres to smaller cities situated beyond metropolitan residential and labour markets. Progress in the metropolisation of space is interpreted as an increasing role performed by large cities or an expansion of dispersed, peri-urban development forms.

Cyclical concepts of the evolution of human settlement systems are not really referred to, which constitutes a certain gap in the scenario construction process. Another limitation is a general European focus which may not reflect the specific settlement structure of individual countries. Those scenarios discussed which show the metropolisation process coming to an end tend to identify this trend reversal with events of a catastrophic character, such as global climate change, uncontrolled mass migration, or widespread political and social conflicts. Economic development and technological change are interpreted as factors supporting, and accelerating, the development of metropolitan areas. Insofar as demographic changes are generally referred to in the scenario-based analyses, their impact on such matters as spatial mobility of the population, the location of public services, or directions of migration flows is still open to further studies.

As is argued in the article, the scenario of continuing, but decelerating metropolisation represents a suitable reference point for investigations, including policy-related studies on the future evolution of the settlement system in Poland. Nevertheless, several limiting factors also need to be taken into account. These factors pertain to the relatively late arrival of the metropolisation process as well as to some specific characteristics of contemporary patterns of urbanisation in Poland. Among the latter, uncontrolled development of suburban and peri-urban areas and structural deficiencies regarding a number of small and medium sized cities may result in the anticipated phase of metropolitan containment being delayed. This reservation is of particular importance in the context of spatial development policies.

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