Spatial competition and competitiveness stands high on the agenda of regional research. These concepts are open to discussion even today, and scholars of different economic schools starting from different premises treat them differently. The aim of this study is to review what the major economic schools of thought have to say about leveling regional differences, about spatial competition and regional competitiveness. Based on different theoretical foundations even within regional sciences different hypotheses are articulated and accordingly different conclusions are drawn about for example the possibility of convergence between regions with various endowments at diverse state of development. As we see it, this is another example of the interdisciplinary character of regional science at work, as getting from different assumptions to different conclusions do not so much question the credibility of our science but calls attention to its versatility and problem-sensitivity.

Keywords
Regional competitiveness, schools of economic thought

1. INTRODUCTION

Different schools of economic thought start out from different premises, and view certain problems from different angles. The aim of the article is to show after a short review of a few selected schools, how many different relevant answer can be given to the question important to researchers of the field: how to handle spatial differences, spatial competition and regional competitiveness and their mechanisms. Based on different theoretical foundations even within regional sciences different hypotheses can be articulated, and accordingly different conclusions can be drawn about the possibility of convergence between regions at diverse state of development with various endowments. These apparent contradictions should not question the credibility of our science, but rather call attention to its versatility and problem-sensitivity.

In the arguments about spatial differences and regional competitiveness in connection with it we can witness remarkable diversity of different schools of thought. A fundamental question is, wether market automatism in itself is sufficient to moderate spatial differences in a given economy, wether spatial convergence emerges in every market economy? Otherwise it is possible, that the invisible hand of the market cannot guarantee this, and outside intervention is necessary.

2. THE CONCEPT OF REGIONAL COMPETITIVENESS

We are going to use the standard definition of competitiveness ([5] [7], p278.) of all the recognised competitiveness-definitions, according to which it is „the ability of companies, industries, regions, nations and supra-national regions to permanently attain relatively high income and level of employment, while open to international (global) competition”. Here we will call competitiveness the permanent success in spatial competition, the ability of continuous economic development, which in turn manifests itself in the growth of GDP and thereby also welfare.

3. SCHOOLS OF ECONOMIC THOUGHT

We selected seven schools of economic thought out of the diverse macroeconomic and alternative schools which we consider relevant. Next, let us review the main concepts and theories of these. The seven schools are:
1. classical economics,
2. neo-classical economics,
3. keynesian economics,
4. theory of endogenous growth,
5. New Trade Theory,
6. Institutional economics,
Evolutionary economics

Reviewing these seven selected schools we will concentrate on whether and how spatial competition can at all be interpreted in terms of the school, and whether levelling off of spatial differences can happen as a result of market mechanisms.

**Classical economics** considers division of labour and its necessary consequence, trade and accumulation of capital to be the key to economic growth [12]. Investing in capital and trade will facilitate specialisation, enhance productivity and the output growth rate. Trade between countries happens according to the absolute differences in productivity, according to absolute advantages [9].

Ricardo proved, that division of labour and trade between countries can be profitable even in the presence of relative (comparative) cost-advantages [18]. The market prices of goods will necessarily reflect the relative magnitudes of labour and capital needed to their production. This happens through the market, through competition. The ordinary profit (normal profit in today's jargon) thus attained by producers will guarantee maximal welfare. „...that [is what] prevents the market price of commodities from continuing for any length of time either much above, or much below their natural price. It is this competition which so adjusts the exchangeable value of commodities, that [...] the remaining value or surplus will in each trade be in proportion to the value of the capital employed.” ([16], p60.). Competition is thus a central concept in classical economics, but is something which governs only the acts of individual economic actors. The problem of spatial competition can not be interpreted as a relevant question in the age of the industrial revolution.

The **Neo-classical school** is undoubtedly competition-centric [10]. It further develops the classical thoughts mainly building on microeconomic grounds. Two things seem important in connection with our topic: the marginalist methodology and the hegemony of self-regulating market mechanisms. Both of these point in the same direction: there is no alternative to free competition. Reaching Pareto-efficient resource allocation through competitive mechanisms there are generally no welfare losses. The comparative advantages and disadvantages also advocated by the neo-classical school will necessarily fade away in the long run [6]. However, the dominance of market clearing prices on the micro and macro level leads one to the conclusion, that any non market-conform phenomenon (government intervention or any other market restrictions) will result in welfare loss.

Despite all these the underlying assumptions of the neo-classical model – perfect information, constant return to scale, long run equilibrium, perfect mobility of factors and perfect competition – and the tools adopted by it make the interpretation of regional competitiveness impossible. A strength of the neo-classical growth model of Solow is to identify technology as the main factor of growth, which is in accord with the generally known understanding of competitiveness. Technology is, however, an exogenous variable in this growth-model, which means, that development will affect every regions alike. Due to the absolute mobility of factors – including technology – any kind of potential difference initially present between regions is bound to disappear over time. If the model does not allow for regional differences, it will also not allow for levelling regional differences.

The **keynesian school** by acknowledging that markets may not necessarily clear, tacitly acknowledges regional differences as well [10]. The keynesian theory agrees, that market is a fundamental institution of the modern economies, but it is unable to guarantee on its own the maximum of social welfare, and has to be supplemented with active government interventions. Less than full utilisation of resources (most notably low rate of employment) causes welfare losses, thus active regional governmental action is indispensable. The same is true at the regional level: on the longer run more can be gained by the intervention of a higher level of government than could be lost by the lack of it.

The model posits a level of national income that can deliberately influenced, and one possible interpretation of this is, that the crowding out effect – much advocated by the neo-classicals – do not prevail at all, or only to a smaller degree. Because of this, the Pareto-efficiency criterion is not affected, while through the well-managed governmental interventions and their multipliclated effects the undesirable regional productivity (competitiveness) differences are moderated or the desirable competitive advantages can be strengthened. The accompaniment of this process is the growing demand along with higher level of employment, which is the motor of the keynesian economics.

An important characteristic of the keynesian school is the recognition of spatial differences, of the effects of government interventions on conjuncture cycles and of underlining the importance of capital-intensity on economic growth [9]. This is the first school which recognises the roles institutions and central and local governments play in determining economic growth and development, which is one of the most important factors influencing regional competitiveness according to empirical studies. The tools and concepts of this school of thought are thus capable of serving as a foundation for regional economic development and deliberate moderating of spatial differences. Put another way: the spontaneous functioning of the markets can hardly lead to regional convergence, this can much more likely to be reached by a deliberate institutional intervention.
The **endogenous growth theory** studies economic growth through explicitly modeling technological advancements and accumulation of human capital [8][17]. In contrast to the neo-classical assumption of exogenous technical development, this is no more coming from outside the model in the endogenous growth theory, but is itself a result of decisions made by rational economic agents. Accumulating human capital necessitates communication between people and the transfer of allready acquired knowledge, the accumulation of new human capital is therefore a function of human capital already owned. Also, a critical level of human capital have to be reached, below this level it is unable to generate any substantial growth. Spatial differences in productivity due to regionally different endogenous growth in technology and human capital can permanently prevail.

Another basic type of endogenous growth models puts innovation as the center of its enquiry [20]. The manyfold application of an invention results in constant horizontal product differentiation, and ultimately the efficiency of the economy grows. Monopolistic competition emerges as dominant market structure and occasional differences in application of inventions will lead to the development of competitive advantages and disadvantages.

Endogenous growth theory is able to study spatial competition, but this will happen on imperfect markets, where permanent competitive advantages develop.

The most important novelties of the endogenous growth theory are the recognition of technology, knowledge and the regions’ own endowments as endogenous variables of the model, which are fundamental in determining competitiveness. According to the model, accumulation of knowledge calls forth increasing return to scale, and thus rising productivity is the result of spatial diffusion of knowledge and technology, wich do not imply any kind of automatism decreasing regional differences. It is noteworthy, however, that deliberate regional (economic) policy aiming at encouraging the growth of these endogenous factors can be an effective tool to moderate regional differences.

The **new theory of trade** has as its starting point the monopolistic competition model of Dixit and Stiglitz, the spatial reformulation of which was an achievement of the new economic geography [6][21]. Economic schools of thougth from the 1990s on began to stress, that due to the globalisation the conventional concepts and tools of earlier economic schools are less aplicable to the functioning of modern economies, like the new kind of competition. Spatial economics or the new economic geography started to develop at the beginning of the 1990s, as the most influential stream of „re-discovering geography“ [7]. Krugman set the focus of his research on the location of production, within which he modeled the changing of the spatial structure of economic activity, emphasising spatial concentration. His main assumptions are increasing return to scale, imperfect competition, decreasing transportation costs and local externalities [1].

According to Krugman, each country or region specialising along comparative advantages can win. As a Pareto-efficient spatial equilibrium emerges from the centripetal and centrifugal forces, it is pointless to talk about spatial competition or competitiveness. A logical corollary from the above is, that regional differences in productivity are the result of different levels of spatial specialisation, agglomeration and clustering. Although many of the concepts of this school rhyme with the logic of regional competitiveness, the whole structure of spatial economics is not suitable to study competitiveness, as it concludes that spontaneous market processes formulate iter-regional differences [7]. Spatial differences, however, can satisfactorily be explained by its help.

**Institutional economics** has at the focus of its enquiries the explanation of economic, social and political institutions [4][11]. They study why and how different institutions emerge that govern human behaviour and organise different interactions. It is noteworthy, that by institution we do not mean organisations, but fundamental characteristics of the functioning of an economy, like private property, market, intra-firm coordination. This school emphasises the concept of institutions along with transactions and transaction costs associated with them. According to Douglas North, the share of transaction costs (which are indispensable to the efficient functioning of an economy, but which are beyond the neo-classical cost concepts) within the total costs in the economy can reach 50%. They are thus absolutely significant.

This school considers competition as a fundamental institution. While the traditional marginalist methodology continues to hold, beside the usual cost functions of production, transaction functions [14] and transaction cost functions [22] are also used. Another cornerstone of the school is the empasising of property rights. An indispensable prerequisite of the Pareto-efficient allocation outcome of competitive markets is the clearness of property rights and their enforceability [15]. This increases the number of the model’s explaining variables and regional differences in productivity have to be studied in a **reformulated competition model** using intitutional factors.

Regional competitiveness is determined by the region’s broadly defined (macro-) institutional environment and transaction costs associated therewith: search-, information-, communication- and coordination-costs, bargaining and decision costs, monitoring and enforcement costs [9][19]. This extended condition-set reflect the complexity of the current economic processes. The concepts and
tools of the institutional economic school are thus appropriate to trace spatial competition and regional processes. Likewise, increasing or decreasing spatial differences can well be handled in the model as the results of the interactions between the narrowly defined economic processes and the institutional factors.

The **evolutionary economic school** puts the emphasis contrary to the mainstream schools on innovation and learning, and stresses the ever-increasing diversity of the economic structure [2] [13]. Heterogeneity, differentiation, complexity and uncertainty are focal concepts of this school [9]. Economic growth is determined substantially, but not deterministically by particular local conditions and historical background. These conditions – most notably prevailing institutional, social and technological conditions – are not exogenous, but part of the „economic evolution“. Regional competitiveness is in turn based on the historical past of the region. New technologies, new institutions can, however, displace old ones, and growth can follow a new trajectory, which, due to the nature of an innovation, may only scantly connect to the past. The ability of regions to create novelty and innovation is the factor, which influences their regional competitiveness on the long run, and this ability is powerfully influenced by spatial concentration.

Competition is a central concept in the evolutionary thought, because new variations constantly emerge, which then compete with each other and this competition selects out certain options. This selection is not only possible through the market, but in the basic model it is generally done by the market. Basic assumptions and concepts of this school make it suitable to study regional processes, especially in the case of hubs of knowledge [3]. Changes in regional differences are influenced by changes in the prevalence and intensity of innovative behaviour in the regions. These changes can be results of spontaneous market processes, so evolutionary economics can handle regional convergence resulting from both market automatisms and institutional (public) intervention. Regional differences are considered to be necessary, but they constantly transforming as a function of the region’s succes in generating and absorbing innovations.

From the above review of the different schools of economic thought it can be seen, that each of them emphasises a different aspect of regional competitiveness. Table 1 recapitulates the key concepts and basic thoughts of these schools in connection with regional competitiveness.

Table 1.: highlighted points of the different schools of economic thought in connection with regional competition and competitiveness and spatial differences. Source: Own compilation

<table>
<thead>
<tr>
<th>Name of the school</th>
<th>View on spatial competition</th>
<th>Can spatial differences be moderated by market forces?</th>
<th>Key concepts and basic insights in connection with regional competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classical Economics</td>
<td>Not applicable in original model</td>
<td>Yes</td>
<td>Specialisation, trade based on division of labour, differences in productivity</td>
</tr>
<tr>
<td>Neo-Classical Economics</td>
<td>Discarded</td>
<td>No</td>
<td>Model’s basic assumptions preclude studying regional competitiveness within the model. Main spatiality-related concept is the concept of externalities</td>
</tr>
<tr>
<td>Keynesian Economics</td>
<td>Acknowledged</td>
<td>No</td>
<td>Economic policy, government interventions, budgetary expenditures, institutions</td>
</tr>
<tr>
<td>Endogenous Growth Theory</td>
<td>Acknowledged</td>
<td>Yes</td>
<td>Knowledge and technology as endogenous regional resources</td>
</tr>
<tr>
<td>New Theoury of Trade</td>
<td>Discarded</td>
<td>No</td>
<td>The model’s design is not suitable to study competitiveness. Inter-regional differences in productivity are results of market mechanisms. Concepts related to spatial processes: spatial specialisation, agglomeration, cluster formation</td>
</tr>
<tr>
<td>Institutional Economics</td>
<td>Acknowledged</td>
<td>Yes</td>
<td>Importance of institutions, spatiality of transactions and transaction costs, importance of property rights</td>
</tr>
<tr>
<td>Evolutionary Economics</td>
<td>Absolutised</td>
<td>Yes</td>
<td>Regional competitiveness rooted in the region’s past, but new technologies, new institutions can start growth on a new path.</td>
</tr>
</tbody>
</table>

### 4. CONCLUSION

From this review one can see, that the different schools of thought contradict each other in multiple important issues, and thus a consistent theory can not be built up synthetising them. Each of these schools emphasise one particular process, factor or a segment which constitutes an important ingredient of the concept of regional competitiveness. Consequently parts of these approaches can complement each other to contribute to our better understanding of the concept of regional
competitiveness. Different economic schools thus do not have to be taken as isolated variants in trying to solve the problem of regional competitiveness, but they all study different aspects of the same object, and so it is worth reconsidering and matching most of their conclusions.

REFERENCES