

Zoltán Gál

# *Financial markets in the global space*

*The financial space disrupted  
by the crisis*

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The combination of financial and geographical-regional analysis is a new and promising development direction not only in Hungary but also at the international level, therefore deserving to be presented by all means. The processing and presentation method of the book is of a high standard, making it useful for a wider professional reading circle.

The monograph has added a geographical dimension to *the range of financial analyses*, having imported the most important characteristics of spatial operation, in addition to the temporal dimension, *into scientific thinking*. In this approach, it aims at exploring the development process of the globalising financial space, the space forming processes of money markets and the spatiality of financial markets and their flows. The author has well captured the most essential characteristic feature of the field examined: the contradiction between the globalising financial space relativizing distances and

the growing importance of the spatiality of financial market operation. At the same time, he refutes the simplifying theories on the 'flattening' and virtualisation of the financial sector and the lessening significance of the market space, which gained popularity in the 1990's.

By today, the role of spatiality has gained importance in economic thinking and there is considerable interest in the geographical relevance of economic development as well as the spatial expansion of economic activities. Although it can be demonstrated in the case of all major economic categories that they have spatial characteristics *ab ovo*, mainstream economic thinking used to model national economies as 'points without a spatial expansion', within which production factors could be transferred from one place to another immediately and with no costs involved. Based on the activity of American economist *Paul Krugman*, awarded with the Nobel Prize in 2008 for lay-

ing the foundations of new economic geography, new economic geography and, through this, the 'rehabilitation' of the spatiality of economic processes, have added an important new colour to the economics of today.

The 775-page book by *Zoltán Gál* proves the *strong spatial boundedness of finances*, presents the 'special' connection between globalisation and the financial sphere and analyses the spatial dimension of financial globalisation first of all, describing the spatial expansion and geographical integration of financial markets. In this he makes the reader see that today, market liberalisation and deregulation are intertwined with financial globalisation, which at the same time means the spatial expansion of the transnational structures, models, standards and cross-border institutional players of financial markets, as well as the strengthening interdependence of national financial markets on a global scale.

Within financial markets, it is undoubtedly the *integration of international markets* that has reached the highest level. In the early 1980's, investors, be it institutional or private investors, invested only 5 per cent of their money in foreign securities. Today, in contrast, rates of 15–20 per cent have become absolutely frequent, while in some countries of a smaller size but with a highly developed financial market, the rate of foreign instruments may even exceed one third of the portfolios. The author has sensibly highlighted the fact that not only the spatial concentration of financial activities but the integration of international markets, too, has market as well as geographical restrictions. On the one hand, the dominance of domestic markets is still typical. Financial markets are characterised by an information asymmetry that grows in proportion with distance. Discussing the factors restricting financial globalisation, the author proves the survival and even the dominance of the preference of domestic markets (national versus global market). With a series of examples and case studies

(extracts) he proves the survival and dominant role of distance and spatial differences.

① In the composition of investment portfolios, domestic instruments dominated over foreign ones (their dominance was 78 per cent in the USA in 2004), which contradicts the large-scale global diversification implied by modern portfolio theory. Thank to this, investors try to exploit their information advantage at the domestic market when compiling their investment portfolios (*home-bias*).

② As regards the connection between savings and investments, domestic investments continue to be strongly dependent on domestic savings and a further strengthening of self financing is expected, especially at periods of crisis.

③ Returns on equity continue to be more strongly dependent on the country of headquarters of the issuing company than on the industry concerned. This correlation is strong also in highly developed countries but is even stronger in the case of developing countries.

④ The wide spread nature of electronic stock exchange trading and the expansion of the geographical borders of trading through stock exchange integrations may make the impression that *geographical distance* has lost its significance. This is not so by far, however. In contrast with the claim implied by modern portfolio and financial globalisation theories, which is based on the geographically wide scale, i.e. global scale diversification of portfolios, empirical analyses prove the underrepresentedness of foreign stocks and investors' preference for domestic securities. *The reasons for this are that investors (households) usually like to invest in geographically close corporate instruments in addition to which investors prefer fund management companies in their geographical proximity. The market grants a kind of yield premium even to the local investments of the largest pension funds; what is more, traders (brokerage firms) who operate geographically closer to the corporate partners*

whose securities they trade in attain higher operating profits.

⑤ It is also due to differences in regulations, corporate management systems and the different time zones in trading that the time is still far ahead when the financial markets of the world can unite in a single global centre. In addition to the distances between time zones, however, geographical distance has significance also within the respective time zones. Furthermore, there is no evidence, either, that the financial market instruments within the respective time zones were concentrated at a single centre. At the same time, even far away stock exchanges compete with one another for foreign companies, brokerage firms and for attaining higher liquidity.

The sizes of share markets and their GDP proportionate capitalisation show strong differences across countries. The explanation is simple: investors' preference for the local share market and the securities geographically closer to them root in the reliability of the attainable information.<sup>1</sup> It is not only the value of information that may decrease by distance but there is also a growing danger of agent problems between share issuers and investors. The information restrictions of investors are much bigger in the case of companies based in small towns and agricultural regions than in the case of those in metropolitan regions. Geographical distance is thus decisive in access to soft and confident information, while only hard and public information is accessible from greater distances; what is more, soft information is also difficult to transfer. The reason for this is that an increase in cross-listing is limited by several restrictions. Despite a higher potential rate of return on foreign investment yields, *home-bias* is explained by several factors: *the higher volatility of international investments, the higher transaction costs of distant investments; the administrative and regulatory restrictions of cross-border investments; taxes, differences in*

*purchase power parity, cultural factors; the fact that a significant part of foreign share markets is not accessible.*

This monograph is the first one to apply the regional and space economic approach in the field of finances, in addition to which it gives a comprehensive overview of the spatial framework of the development of financial markets, the *new space economic theories describing the financial space*, the spatial organisation of market segments and capital flows and the concentration and deconcentration processes of centre formation determining the operation of markets. It describes the global power centres in transformation due to the global imbalances determining the development of financial markets in the past decades and the changes of directions of capital flows, the decentralisation of traditional securities markets as well as the processes of securitization and disintermediation, while keeping the focus all the way through on the presentation of spatiality and geographical characteristics.

Among these, the book highlights in detail upon the role of *information* in forming financial space. Money markets as they are can be considered a huge information processing system, in which not only the volume of information, but also its costs and quality as well as its spatial concentration are determinative.

*Money can also be considered an information product*, partly because of the significant information content of the various money replacements, securities and electronic financial products. *The process of financial services is an information process itself and, on the other hand, the information incorporated into financial products is an end product at the same time.* Information can thus be considered a kind of *raw material* for money and money replacements in that these provide information on markets, exchange rates, the rates of return on investments and on creditability. Information may, on the other hand, be also an *end product*,

manifested in the added value created by incorporating the listed information inputs. Electronic market products (e.g. derivatives, exchange rates, hedge funds) appearing in addition to the traditional financial market mediation roles (source collection – crediting) have a stronger information mediation content.

Successful market presence requires the acquisition of information on the local *economic-social environment, labour market and the local mediation channels*. These include considerable intangible, place specific information the acquisition and application of which in the business requires a many years' local operational experience and presumes the *local embeddedness of international capital*.<sup>2</sup>

At the same time, paradoxically, the seemingly more easily attainable information has become one of the most important factors influencing the selection of a company's seat. The explanation for this is that only access to general and standardised information has become easier, while non-standardised information with hidden knowledge continues to be concentrated in a few centres. The more hidden knowledge a transaction requires, the closer the partners set up their seats to each other. The value of the information generated here decreases by distance. Today's informatics networks have created 'a virtual world without distances' and in this virtual space it is not evident where the business partners are at the moment. In other words, communication technology in theory offers companies increasingly wide opportunities in the choice of a geographical seat. The big question is if real space can lose position against virtual space.

The manifold argumentation of the author clearly reveals that even virtual space has its control centres, which are essentially the same as the control centres of traditional geographical space. Totally virtualised markets, companies or economic sectors thus do not exist; *there are continuous interactions between the dig-*

*ital and real spaces* of financial markets; the processes of 'cyber space' continue to be *determined by the economic and social processes of real space and the control centres of virtual space are essentially the same as the centres of traditional space*. The more hidden knowledge a transaction requires, the closer the partners establish their seats to each other. *The value of the information generated here decreases by distance*. (The costs of information growing proportionately with distance are difficult to calculate precisely, partly because of the hidden knowledge content, partly due to the different cultural and legal environment of the markets.)

The book confirms the theorem known from the literature, i.e. that *informational asymmetry increases by distance*: it continues to be very expensive to attain *high quality information*; it has remained to be a market premium attainable through a refined organisational background and at a high cost. It is only at the international financial centres where locally embedded key information is attainable. While the conditions of technical infrastructure can be created anywhere, *the social connectivity necessary for the acquisition and processing of high quality information as well as the complex control function can only be provided at the largest financial centres*.<sup>3</sup>

The operation and further strengthening of *global financial centres* are probably the best pieces of evidence for the spatial concentration of finances. The acquisition and processing of locally bound information based on personal relations, which makes it possible to exploit special investment opportunities, have been impossible to eliminate by any other forms of communication at the global centres.<sup>4,5</sup> Chapter 7 of the book, in addition to discussing the establishment and operation of global financial centres, also follows the integration process of the centres of emerging markets to the global network system of financial centres. It presents the establishment factors of

international financial centres and the significance of path dependence and state subsidisation (regulatory environment) in the successful operation of these centres.

The past decade has not only been characterised by a sharp rise in the turnover of liquid instruments freely investable at financial markets, but also by an increase in the *international flow of capital* seeking ever newer investment opportunities across borders. And as important the knowledge of goods and capital flows in the international economy is, as important it is to understand the money flows of the financial sector in the world economy serving as the basis for its profit producing ability. The question is not only where FDI comes from and where it is invested – which is something dealt with by international economics – but it is also a huge question what significance portfolio investments have and what spatial changes can be witnessed in the world in this respect. Thus the book of Zoltán Gál surpasses the unilateral, FDI-centred attitude of international economics, trying to view the process in a complex way, with the help of data series demonstrating trend-like arrangement and maps implying a geographical arrangement.

The book highlights the restrictions of the previous capital flow theories, which have experienced at least the third paradigm change now: we have witnessed capital flows from developed to developing, from developed to developed and, today, from developing to developed countries. The way it was impossible to understand the phenomenon contradicting the 'schoolbook' theory, i.e. capital flow from developed to developed countries, without a detailed analysis of the roles of the institutional system, the infrastructure and human capital in it, it is hardly possible to understand today's money flow trends without the financial geography of the global world.<sup>6</sup>

The author has revised the new economic geographical literature on *the paradox of capital*

*flows* (pp. 242–244) and highlighted upon the fact that analyses have not proved a close correlation between growth rates and the volume of capital investments. Considering developing countries, the most capital flowed exactly to countries characterised by low or medium growth, while there was relatively less net capital flow into countries with the highest growth (China), and at the same time these countries have also become significant capital exporters. From this it follows that exactly developing countries that relied more on foreign capital were characterised by slower growth. In contrast, as regards developed countries, countries more dependent on foreign financing and offering much more investment opportunities to foreigners produced the fastest growth. (It is an important correlation, which can be applied also for the lessons of post-socialist transition, that foreign operating capital is not necessarily good for the national economy if the repatriated profit is higher than the amount of FDI invested to achieve it. If the influx of FDI precedes the strengthening of the national capital furthermore, direct foreign capital investments hinder the development of the national economy.)

The closing part of the book entitled *Financial globalisation on the decline? The global financial crisis of 2007–2009 and its consequences (The spatiality of the crisis)*, which is separate from the main corpus of the book, is an important constituent of the monograph, pointing towards the future. It provides a brief introduction into crisis typologies, describes the characteristics of system crises and, in relation with the crises of emerging countries, it compares the institutionalist explanations of the critical and financial globalisation theories, highlighting upon the shortcomings of the earlier crisis models based on the treatment of emerging markets as sources of infection as well as upon the constraints of the 'strong Western institutions' recipe.

Here, the book is among the first attempt to present the geographical expansion and impacts of the global financial crisis of 2007–2009 and examine what are referred to as perverse infection trends,<sup>7</sup> different from earlier crises, exploring the regional differences in the spreading of the financial crisis. The spatial impacts of the financial crisis can be examined from two points of view: considering the spatial expansion and the seriousness of the impact on the one hand and the future vision of the globalised world on the other hand. By examining the expansion channels and mechanisms of the financial infection and evaluating the financial geographical lessons of the credit crisis, the monograph has assumed a pioneer role.

Through revising the long-term impacts of the crisis, presenting a literary critique of an 'institutional' attitude of financial globalisation, the book shows why, in contrast to earlier assumptions, the global integratedness of money markets was unable to localise the current financial and economic crisis in which the infection shattered even the bank systems believed to be stable. At the same time, using the experience of the German neoliberal system model, the pillars of which are the universal bank system as well as the existence of developed, locally and regionally embedded financial structures, deserves attention from the point of view of scenarios meant to prevent similar global crises in future as well as for the reorganisation and future operation of the 'neoclassical' bank system.

Based on the above it can be established already that this monumental and valuable piece of work will surely be used in the long run as a handbook for those interested in finances.

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As a way of acknowledgement for the author's accomplishment, in what follows the reviewer is to compare the author's views with the findings of two eminent scholars of the field.

## THE RESEARCH FINDINGS OF ZOLTÁN GÁL AND KRUGMAN'S NEW ECONOMIC GEOGRAPHY

In his work, the author relied on the *basics of Krugman's new economic geography*, while, from a critical point of view, he also highlighted upon some of the shortcomings of the theory: first of all the fact that Krugman's investigations focused on industrial (innovation) spaces, while an investigation into financial markets was essentially left out of the basics of new economic geography.<sup>8</sup>

*The greatest achievement of new economic geography (NEG)* is that, taking traditional economic categories as a basis, it tries to integrate geographical characteristics into economic theory; what is more, beyond this, it models the impacts of the spatial concentration of economic processes. Zoltán Gál critically notes that in his works on international economics and finances (crisis theory) *Krugman* failed to build a bridge between new economic geography and financial markets and failed to apply his "new space economic" methods when investigating into international finances.

In the focus of Krugman's theory, there are the *agglomeration and concentration processes* of the world economy that can be described by the regularities of regional economics (comparative advantages, increasing returns to scale, transaction costs, centre-periphery balance, externalities, regional agglomeration, labour force mobility, development path dependence, etc.). Behind the spatial concentration of production and services there are increasing economies of scale (cumulative returns) as well as spatial transaction costs between distant locations. The concentration of activities tends to be a self sustaining process, which also means that the existing agglomerations attract ever newer investors, services and industrial companies (agglomeration theory). In parallel with the concentration processes, the theory

also emphasises the importance of deconcentration processes.

Krugman's new approach has not only imported the problem of spatial location to the central issues of economic science but, enriching the latter with this new aspect, it has reconsidered a series of issues believed to have been solved before.

Zoltán Gál could, however, not fully rely on the methodological framework of new economic geography in his investigations, for two reasons. For one, because, apart from some general statements on the spatial arrangement of markets, NEG does not deal with the spatial arrangement of the financial sector (even in Krugman's works on international economics, only traditional international financial theorems are formulated, without a spatial approach). Secondly, so as to agree with the critique coming from economic geography and regional economics, NEG fails to apply the full range of methodological instruments of spatial investigations, because of which 'NEG can be rather considered a »kind of spatial macro economics in the guise of new economic geography«, in which space or spatial location is only one endogenous variable among the many" (p. 154).

Krugman's model has failed to give an answer to a series of questions related to the spatial concentration characterising financial markets also, including the problem of convergence, centre-periphery changes as well as special questions on the formation of financial centres. The other major problem is that the model is too much industrial production-centred and is on the ground of trade theories, so, apart from a few evident observations, it fails to look for an answer even for the spatial fragmentation of the service sector (pp. 151–156 and 162–165). In NEG, finances are only important inasmuch as they contribute to oiling up the machinery of global production and distribution. Krugman's theory regards *financial-business services* that have a key role in the

formation of the global economic space (in the concentration and fragmentation thereof) merely among *positive externalities* which, in a regular market environment, do not only increasingly contribute to the added value of the other sectors and in the case of which the seat selection aspects are more specific than in the case of other sectors. In NEG, financial space is mentioned only *in relation to the risk capital* oiling up the concentrations of innovative core regions. Furthermore, the theoretical framework applied in Krugman's NEG has provided no opportunity for investigation into the impacts of transnationalisation and of information-communication technologies, thus being unable to interpret the new logic of agglomeration, either.

In contrast, the author relies on the *theorems of financial geography with a more complex approach*. This trend explains the concentrations and strong home bias of the financial space by information asymmetry and the difficulties in treating the agent problem, growing with distance, complemented with the spatial dimensions of portfolio theory. Financial geography explains the spatial differences of markets not only with the differing returns and costs maps of global investment opportunities but, in addition, it deals with the flow of simultaneous information integrating markets and the institutional and behavioural theory risks hidden in the evaluation of the information concerned. On the one hand, the more *hidden knowledge* a transaction requires, the closer the partners establish their seats to each other. The *value of the information generated here decreases with distance*; its costs grow by distance. On the other hand, in the case of distant investments, the division of the portfolio on a geographical and sectoral basis serves reducing the risk. In the case of investments in financial centres rich in information, information can be weighted by the volume of the expertise shared.

Zoltán Gál opines that, in the new NEG with a financial dimension added, neither finances, nor production can be concentrated to a few centres merely. The proliferation of agglomeration, partly due to the rising factor costs and the risk-weighted returns on assets, is counterbalanced by the geographical dispersedness and fragmentation of the activities.

At the same time, the fragmentation involved in the transnationalisation of financial activities does not affect the control-power positions of traditional centres; on the contrary, it fosters the higher concentration of central control functions and of quality (financial) information and innovation, also determined by the local social infrastructure and milieu. The information and communication technologies we probably expect to neutralise the significance of the traditional centres of financial space, actually contribute to spatial polarisation.

Further developing the NEG model<sup>9</sup> of *Ottaviano and Puga* (1999), Zoltán Gál described the spatial concentration of production processes by an inverted U, which can be applied to financial markets already (pp. 154–156). This is suitable for the explanation of not only concentrations<sup>10</sup>, but also the *deconcentration processes* of financial markets observable in the past two decades as well as the rise of new (e.g. the Asian) financial centres. This may occur when turnover and transaction (e.g. telecommunication) costs are too low and the increasing costs (labour costs, high rental fees, increasingly expensive line infrastructure) following from the over-concentratedness of activities (e.g. the congestion of metropolises) cause the dispersion and fragmentation of activities, their placement to the periphery, thereby reducing the rate of agglomeration. In the new centres, on the peripheries, the process of agglomeration starts anew (the concentration of quality information and control functions), which leads to the formation of new centres<sup>11</sup> (e.g. the Asian financial centres).

## THE RESEARCH FINDINGS OF ZOLTÁN GÁL AND LAULAJAINEN'S 'FINANCIAL GEOGRAPHY'<sup>12</sup>

In international technical literature, at least half a dozen works have been published on the spatial organisation of financial markets, of which the 'financial geography' of *Risto Laulajainen* (professor emeritus at Göteborg University) was the first that, since the publication of *Jean Labasse's* (French geographer and banker) work in 1954, has provided a full-scale overview of the various segments of financial markets. The rest of the monographs mostly focus on one or two fields only. *Sassen's* *Global City*, for instance, focuses on financial centres, *Cohen's* *Geography of Money* on monetary space and the operation of currency systems and the book *The geography of finance* by *Clark, G. L. – Wójcik, D.* on the national/regional differences of corporate management systems.<sup>13</sup>

The major shortcoming of the book by Laulajainen is that it lacks theoretical handholds; the theoretical frameworks of neither new economic theory nor modern (financial) geography, nor political economics have been incorporated in the work. In his work he uses static data, thus providing a kind of static description of regional differences and interactions. Zoltán Gál, in contrast, has strived to present time lines and trends, embedding the formation of financial markets in the evolution processes of financial system models and financial globalisation. He has examined the spatial characteristics of financial markets embedded in at least a two centuries' historical evolutionary process of financial globalisation. From the book by Laulajainen, the theoretical frameworks affecting the spatial operation of financial markets are missing, while in his work, Zoltán Gál has devoted two individual chapters (chapters 1 and 3) on the presentation of the spatial attitude and the processes and theoretical frameworks forming the financial space.



Even in the case of the selected segments, there is considerable haphazardness in Laulajainen's book. While it fails to provide a systematic overview of institutional investors, it discusses insurance companies and, at the same time, no mention is made of pension funds, the greatest allocators of international capital movements.

As has been mentioned above, the failure of providing a theoretical basis for dynamic spatial processes is a shortcoming. By the use of some base models, the spatial dynamic of market processes could have been easier to interpret and an emphasis on seat dependence and path dependence, for instance, would have helped a better understanding of the formation and success (dominance) of global financial centres continuous until today. In his book, Zoltán Gál devotes a special chapter on the factors determining the formation of financial centres and the permanent sustainment of their central role, including path dependences among others.<sup>14</sup>

This could have helped Laulajainen find an explanation for the sustained dominance of national stock exchanges in the age of financial globalisation, which Laulajainen simply referred to as the 'irrational national preference' of market players. The real reason in fact roots in the rational decision of investors, which also makes the greater liquidity of traditional global stock exchanges sustainable: the high number

of transactions involves a more flexible pricing and faster dealings, which guarantee their force of attraction compared to newer and cheaper stock exchanges. Path dependence thus provides evidence why national stock exchanges, for instance, have not lost their primary role. In Chapter 6.3, Zoltán Gál gives a much more refined formulation (pp. 333–334); by even presenting various scenarios (pp. 348–350), he predicts a strengthening of the stock exchanges of major centres through integrations. At the same time, this does not mean a clear loss of significance of national stock exchanges (financial centres) since the *future of stock exchanges continues to strongly depend on the future of the financial centres* to which they have been strongly bound for centuries. On the other hand, the national fragmentedness of regulations, the proximity to political decision makers and the emphasis on the national symbol character of stock exchanges continue to strengthen national financial (stock exchanges) centres which mediate non-standardisable information for domestic players.

In view of the works of these two internationally eminent authorities, it can be established that the book of Zoltán Gál published by Akadémiai Kiadó is significant also from an international viewpoint.

*Gusztáv Báger*

## NOTES

<sup>1</sup> The preference of domestic investment has several other explanations beyond the attainability of information: administrative and regulatory restrictions on cross border investments; the higher transaction costs of distant investments; the fact that a significant part of the foreign share markets are not accessible (closed limited companies, state owned companies); distant investors may face a stronger competition as regards the acquisition of local resources (labour, real estate market, services).

<sup>2</sup> At financial markets, distance appears as an information cost factor since delivery costs are marginal

here (while telephone and travel costs do occur). In the past success decades of globalisation, not only the restrictions to capital flow, duties and delivery costs have eased and decreased but access to money market information has also become easier and some information (e.g. share prices) generally accessible.

<sup>3</sup> The base functions of global cities are thus primarily determined by their roles as financial centres and their power roles. The concentration of financial activities and of the centralised control functions is one of the attributes of these centres.

- <sup>4</sup> On the basis of their information content, financial products can be put into three categories (transparent, translucent, opaque), and it is the information content of the given product that determines the hierarchy level and geographical characteristics of the financial centre selling the product.
- <sup>5</sup> The author examines the different spatial concentration levels of individual financial market segments. While it is derivative and foreign currency markets that show the strongest concentration, being concentrated to a few key centres only, bank loaning is the least concentrated branch.
- <sup>6</sup> Hungarian-born post-Keynesian economist Thomas Balogh, too, drew attention to the 'perverse' flow of capital. (Thomas Balogh: *The irrelevance of conventional economics*. New York, Liveright, 1982) This means that foreign direct capital investment does not clearly flow from developed countries to underdeveloped ones, but FDI is also directed at developed countries where there is higher relative productivity. Bad macro indicators and other risks, too, keep capital out of developing countries. The current processes of capital flow radically refute traditional capital flow theories. Capital does not flow from developed to developing countries, neither does it flow, according to the Lucas-paradox, from developed to developed countries; the latest capital flow trends are characterised by the fact the capital flow is directed from developing countries to developed ones. [Cf. e.g.: Botos, Katalin (ed.): *Idősödés és globalizáció (Ageing and globalisation)*, Tarsoly Kiadó, 2009]
- <sup>7</sup> In contrast to the local or regional crises of earlier decades, the current crisis is a real global crisis, one the focal point of which is not among emerging markets but in the developed world: the United States itself.
- <sup>8</sup> Krugman, P. (1991): *The Geography of Trade*. Cambridge, Massachusetts, London, England. The MIT Press. Krugman, P. (1999): *The role of geography in development*. – *International Regional Science Review*. 2. Krugman, Paul R. – Obstfeld, Maurice (1994): *International Economics. Theory and Policy*. Harper Collins, New York
- <sup>9</sup> Ottaviano, G. I. P. – D. Puga: *Agglomeration in the global economy: A survey of the 'new economic geography'*. *World Economy*, 21 (6), pp. 707–731
- <sup>10</sup> The formation of the ratios of deconcentration and concentration processes is a recurring issue in today's literature on regional economics. In the early 1990's, many predicted that, through the spreading of electronic trade, market relations bound to geographical locations would dissolve. In addition to the reduction of transaction costs, they predicted a decrease in the disorders of financial trade, what is more, even the loss of significance of traditional financial centres. Representatives of the hyper-globalist theory believe to discover the diminishing role of geographical space and the loss of role of traditional centres in the worldwide expansion of service companies free of spatial restrictions. (Their assumption seems to be supported by the fact that today leading investment banks or the biggest audit companies operate in much more countries and the network of their subsidiaries is much more extended than twenty years ago). In actual fact, contradicting deconcentration tendencies, a high concentration and agglomeration of financial services and their institutions can be observed, while deconcentration tendencies have also become stronger through the global integration of the centres of new emerging markets (the international network of financial centres has been continuously widening. The resources of some global cities are sufficient for meeting the global functions, while a network of secondary international financial centres has also been formed). Since finances cannot be concentrated at just a few integrated mega centres partly because of the rising factor costs of agglomerations, and also because risk weighted returns foster the geographical dispersion of financial activities. In addition, technical innovations have not only improved global communication and reduced the optimal size of production units but, combined with the techniques of risk management, they have made the establishment of geographically extended (dispersed) service networks possible and in fact essential.
- <sup>11</sup> By the increase of transportation costs predicted for the future, the cost advantages following from the agglomeration of market players (increasing return of scale, decreasing unit cost) may decrease, which may involve the strengthening of local markets.
- <sup>12</sup> Risto Laulajainen: *Financial Geography – A Banker's View*. By. London and New York: Routledge, 2003, and Risto Laulajainen's CV: <http://www.hgu.gu.se/Files/kulturgeografi/personal/Risto/Risto-ShortVita.pdf>
- <sup>13</sup> Sassen, S.: *The Global City*. Princetown, University Press, 1991, 2001

Cohen, B.: *The Geography of Money*. Ithaca and London, Cornell University Press, 1998

Clark, G. L. – Wójcik, D.: *The geography of finance: corporate governance in the global marketplace*. Oxford, Oxford University Press, 2007

- <sup>14</sup> For the survival of financial centres, see page 392. The question may arise what is the reason why, although the Internet and other communication technologies could make the dispersedness of key divisions possible, the majority of them are strongly concentrated at the traditional international financial centres of the world. It seems that, even though technology would be no obstacle to a dis-

persion of financial activities, the predicted general decentralisation has failed to take place. Despite the connection through the electronic network, financial centres will continue to require physically localised sites because, although the movement of money capital has become increasingly free in the past decades, social capital has remained to be strongly geographically bound and furthermore determined by development historical precedings (path dependence). Another argument for traditional financial centres is historically determinedness, path-dependence (p. 395). At centres where information flow was guaranteed in the past, this is likely to be the same in future.