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Financial Globalisation and the Spatial Limitations of the Financial-monetary Integration in the Euro Area

Summary: The present paper analyses the spatial features of financial markets embedded in financial globalisation and the development of the euro area's financial market, and demonstrates the spatial anchoring of the financial sector. It highlights the home bias of investors for the national markets as one of the "spatial" limitations of financial globalisation, the persistence of information asymmetry in proportion to distance and incomplete capital mobility. It demonstrates that despite the integration of the international markets, the domestic markets continue to have predominance. It also points out that the protracted crisis of the euro area and its incomplete financial and monetary integration are caused by the internal structural problems of the euro area's financial integration and territorial inequalities in addition to the spatial limitations of financial globalisation. Using several criteria it proves why the principle of European integration took the least effect on the financial markets and demonstrates that the uniform monetary policy – along with fiscal integration – also fails to facilitate real convergence; in order to achieve that, economic and financial market integration should be deepened further and territorial disparities should be decreased.

Keywords: financial globalisation, international financial markets, information asymmetry, euro area, financial integration
JEL codes: F30, F62, G1, N24

The role of spatiality has recently gained significance in economic thinking and there is also considerable interest in both the geographical aspects of economic development, as well as the spatial dimension of economic activities. Although it can be demonstrated that each of the major economic categories already has spatial features, "mainstream" economics described national economies and markets as "points without spatial dimensions" within which production factors can be promptly transferred from one place to another without any costs.[1] *Paul Krugman's* new economic geography and the findings of regional research have brought a new approach to economics by "rehabilitating" the spatial nature of economic processes (Krugman, 1991).

The discovery of (economic) space is connected to the global processes of world economy, to the fact that differences in the level of development are becoming permanent and being interpreted as regional differences. It is mainly the balancing and standardising factors of globalisation that have shaped public thinking. In our view, globalisation, including financial globalisation, is both a cause and an effect of regional imbalances, comprising processes that are essentially determined by space.

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In recent years, the spatial features of economy (choice of company sites, global value chains, networks) have been incorporated into both corporate and governmental decisions at the macro as well as the micro level. While the theory of the new economic geography endogenised economic space from the macro level, the theory of local advantages proposed by *Michael Porter* relied on the local business environment that offers lasting competitive advantages, which represents the micro level (Porter, 1998). However, this new spatial approach to economy has had little impact on finances, that is, on the study of financial markets (Dusek, 2011; Gál, 2010, 2012a–b[2]).

The present paper analyses the spatial nature of financial markets as a positive externality[3] embedded in financial globalisation and the development of the euro area. It interprets financial globalisation as the spatial extension and geographical integration of financial markets. It studies the limitations on the integration of international financial markets by comparing and confronting the mainstream and spatial economic theories of financial globalisation. The second part of the paper analyses the deeper, structural reasons for the crisis in the euro area. The two topics are addressed jointly because the global economic crisis that broke out in 2008 can be traced back to certain broader aspects of the prolonged regional crisis in the euro area involving problems related to financial imbalances, although it was not due to the internal anomalies of the euro area. This section points out that balance issues of financial globalisation were aggravated by the internal imbalances of the euro area. This is why the bank, debt, growth and balance of payment crises hit the euro area much harder. The imbalances of the euro area have a very strong spatial economic aspect since they are part of the theoretical framework of centre vs. periphery. By looking at several new criteria, the paper points out that the internal structural problems inherent in the integration of the euro area can mostly be traced back to the shortcomings of the financial market and monetary integration. One of the aims of this study is to provide a new perspective for the literature on financial globalisation and integration in the euro area.

SPATIAL ECONOMIC INTERPRETATIONS OF FINANCIAL GLOBALISATION

The spatial dimensions of financial globalisation

Financial globalisation is a process determined by spatiality, which means both the cross-border geographical integration of the financial system, along with the strengthening of the interdependencies among international financial markets on a comprehensive and global scale, and the deepening of market imbalances (Gál, 2010). Financial globalisation has become intertwined with market liberalisation and deregularisation ensuring free capital movements, which resulted in a boom in international capital investments. In the course of this process, the national financial markets get integrated in the international financial system in complex ways and get into contact with the institutions of the international financial system (Stark, 2006; Kose et al., 2006; Báger, 2011). The question is how the contradiction between the impact of the electronic financial space which relativises distances and the growing importance of the spatiality of financial market operation can be resolved. Can financial globalisation eventually lead to a situation in which the financial world shrinks and the importance of the financial space is reduced together with geographical distances becoming smaller? In our study we shall briefly present the limitations of financial globalisation – which

also has spatial attributes – in terms of nation states, regulation, distance and information, thereby attempting to demonstrate the strong spatial anchors of the financial sector.

It is obvious even in the digital age that financial markets are strongly anchored in and determined by special aspects, no matter how hard the literature of the period tried to demonstrate the role of the Internet in "destructing space" for financial markets (O'Brien, 1992). At the same time, however, spatial determination is one of the key features of the financial systems.

On the one hand, financial systems have a complex institutional background, as well as centres which issue and receive capital and have a management function. As a result, the spatial movement of capital can be "localised" in geographical space (Gál, 2010).

On the other hand, globalisation is an uneven process. It is induced by territorial disparities, which generate capital movements and are further enhanced by these movements; in other words, the movements of money and capital are basically generated by territorial disparities between the various locations in the geographical space – in terms of capital supply, interests, profit rates and regulation – as well as by the considerable heterogeneity of and territorial differences in markets and financial instruments. The financial actors of globalisation take the best part of the profit deriving from these territorial differences (local arbitrage) (Bernek, 2001; Cséfalvay, 2004).

Thirdly, financial markets are characterised by space-shaping processes of both concentration and deconcentration.

Information technologies have considerably broadened the range of opportunities for financial institutions to select the geographical location for their offices. The most important factor that reinterpreted the role of physical distance, geographical locations and centres in financial markets was information transfer. The transportation costs incurred by geographical distance lost its significance in these markets.[4]

While previously the key factor in choosing a site was the transportation cost, by now it has been replaced by the cost of information. However, contrary to the theory of efficient markets (Fama, 1970; Bélyácz, 2011), *Grosman* and *Stiglitz* (1980) argued that the markets cannot be fully efficient because information is received in exchange for a price, in other words prices cannot reflect all the information. Information asymmetry, a basic feature of financial markets, is another factor that contradicts efficient markets. The level of information that is available for the parties, participating in transactions on these markets, largely depends on their spatial location. Information asymmetry is strongly dependent on distance, and the information distance between market participants grows in proportion with the physical distance between them (Faini et al., 1993; Porteous, 1995*)*. However, the role of physical distance – especially as far as high-quality information is concerned – continues to be important. The more hidden knowledge a particular transaction requires, the closer clients get settled down to one another since the value of information generated locally decreases with distance (Grote, 2003).

Financial markets can be seen as a huge information processing system in which, apart from the quantity and cost of information, its quality is also an important factor in choosing the location of company sites. The theory of efficient markets believes in plentiful information available without costs. At the same time, significant costs are generated not only by acquiring information but also by processing it and by making investment decisions (Bélyácz, 2011). While standard information has essentially become global and accessible from anywhere thanks to digital technology, non-standard, high-quality information con-

taining hidden knowledge continues to be concentrated in only a few centres. Only the largest international financial centres can provide the infrastructure required for the processing of high-quality information. (Sassen, 2004). High-quality information therefore can still be obtained only with an institutional infrastructure that only the largest service providers have and only at a high cost – accordingly accessible only in a few international financial centers –, leaving it a concentrated and costly market premium (Gál, 2010).

The role of geographical centres (sites) is crucial in financial markets as well. This is one of the basic features of the spatial determination of these markets. On the one hand, the central places which can leverage the benefits offered by information have become the leading financial centres of the world. These international financial centres monopolise information, build global networks and exercise control over the centres of the financial markets. On the other hand, paradoxically, it is precisely the decentralisation of financial services that requires the centralisation of strategic management functions into these centres (Sassen, 1999, 2004). Taking advantage of the economy of scale benefits stemming from the agglomeration of financial activities continues to have a decisive role. The theory of efficient markets also presupposes some kind of agglomeration when it claims that the more well-informed market participants there are and the faster information spreads, the more efficient the market is and the faster it can respond to new information by price changes (Fama, 1970).

In addition to concentration, deconcentration (e.g. economy of scale disadvantages, access to immobile factors, negative externalities) and the regional decentralisation of corporate networks also play a role in the spatial organisation of financial markets. While economic activities are becoming global, the sources of the lasting competitive advantages of companies are becoming localised, leaving capital considerably place-specific despite its strong mobility. The acquisition of knowledge on local markets – as a means of reducing information asymmetry – has a key role in the strategy of transnational financial companies aimed at creating networks. The acquisition of site-specific information requires several years of local operating experience even for these companies with international capital locally embedded (Porter, 1998; Yeung, 1998, 2002).

The (spatial) limitations of financial globalisation

According to critics emphasising the limitations of financial globalisation, the processes of financial globalisation question the claims and expectations in related to it (Stulz, 2005). In the next sections we shall review the most important mainstream and critical theoretical views, which we shall then refute on the basis of partly theoretical grounds and partly empirical databases.

Theories refuting the unlimited development of financial globalisation

In recent decades, the global integration of international markets has reached the highest level but this integration also has market-based and geographical limitations. Domestic markets continue to be dominant, though international (cross-border) markets have gained a lot of ground in the past decades. In the early 1980s, traders invested only 5 per cent of their portfolio in foreign securities. In contrast, a ratio of 15–20 per cent became quite common in the mid–2000s, but it even exceeded one-third of the portfolios in some small countries with a developed financial market (Gál, 2010). In this subsection we will review the theory of preferences for national

markets and the theory on investment and capital flow in order to demonstrate that despite its high level of internationalisation, the capital has preserved its home country characteristics.

❶ Due to the information asymmetry growing with distance, financial market participants sought to take advantage of the benefits deriving from the knowledge of the national market when planning their investment portfolio. Investors' home-bias towards national markets – despite the potentially higher rate of return on foreign investments – is justified by several factors: higher volatility of international investments, higher transaction costs, the tax regime, differences in purchasing power parity and cultural factors. A study conducted with American investors showed that small investors in particular are willing to invest in assets in their vicinity. 85 per cent of the stock portfolio of American small investors consists of domestic securities and one-third of that is in corporate stocks with the company based within 250 km of their centre (Coval and Moscowitz, 1999). The preference of small investors for local securities is rooted in the reliability of the information that can be obtained. It is not only the value of information that decreases with distance but there is a growing risk concerning the agents acting between issuers and investors. This distance is generally greater in the case of large investors. The local investments of the largest pension funds are also rewarded by some kind of a yield premium by the market since the geographical vicinity between corporate centres and traders is positively correlated in terms of the effectiveness of the relationship and the yields. Studies carried out in Europe by *Wójcik* (2002) confirmed that cross-border investors tend to prefer target countries that are closer to them.

❷ According to the so-called Feldstein–Horioka puzzle (1980), which refutes the theory of perfect international capital mobility and modern portfolio theory, portfolio investors put most of their domestic savings in the country of their origin. So, there continues to be a strong correlation between domestic investments and domestic savings. This also means that most of the domestic savings go into the domestic markets rather than into foreign investments. Although the strength of this correlation decreases with the deepening of financial globalisation, the legitimacy of this theory has been verified both for the developing countries (whose self-funding rate did not show any significant changes in later studies either) and the openness of financial and capital markets (Gál, 2010). Lasting preference for domestic investments is explained, among other things, by the higher risk premium of foreign investments and capital control (Stulz, 2005).

❸ The integration of global financial markets is restricted by the fact that instead of developing countries capital continues to flow into developed countries. The Lucas paradox (1990) says that capital flow – despite similar yields – mainly targets the developed countries. The global financial integration thus further deepened the antagonism between the North rich in capital and the South that used to be lacking capital, preserving a kind of lasting global asymmetry up to the turn of the millennium, in spite of the fact that emerging markets have successfully integrated into the global economy. In 2000, per capita investments in the developed countries was USD 6,000 while it was only USD 400 in the developing countries (Gál, 2010). The textbook theses of capital flow are radically refuted by today's capital flows. There is now a third paradigm in the literature: in addition to capital flow from developed into developing and developed into developed countries, today we are also seeing capital flows from developing into developed countries and from emerging markets into other emerging markets as well.

Just like it was impossible to understand the phenomenon that went against the "textbook" thesis, the flow of capital from developed to developed countries without its thorough investigation, it can hardly be understood how today's capital flow tendencies develop without studying the financial geography of the global world (Botos, 2009).

4 The size and yields of stock markets are very different in each country. Stock yields continue to depend strongly on the country in which the issuer company is based rather than on the sector concerned. This correlation is strong in the case of developed countries but even stronger with regard to developing ones. The cross-listing of companies on foreign stock markets is still hampered by several factors. As a result, stock exchanges continue to trade domestic securities (*see Table 1).* Issuance on a foreign stock exchange, however, is a key indicator of globalisation, and its limitations are strongly correlated with the system of corporate governance.

5 National borders continue to be decisive for ownership structure and corporate governance. Most companies are still in "concentrated" family ownership and in countries where the safeguarding of shareholder's interests is weak (e.g. in Germany), the ratio of distributed stockholdings is only 12 per cent, while it is 48 per cent in English speaking countries where ownership rights are endorsed more strongly. The twin agent problem, which is manifested in the concentration of insider corporate ownership and the state's preference for domestic insider owners, can also be considered as an obstacle to financial globalisation (Stulz, 2005).

The advantage of international financial markets due to size

The critical literature discussing the features of the international financial superstructure grouped the changes that had occurred in the world's financial markets around two main hypotheses (Strange, 1986). The first approach considers international finances as the most globalised economic sector and international financial markets as markets with the highest volume (Bauman, 1998; Bernek and Farkas, 2002). The second approach highlights the dominance of international financial markets over domestic markets. We argue that the internationalisation of the financial sector took place at the expense of domestic finances. As a result, international financial markets have become dominant (with respect to size) over the domestic markets (Strange, 1986; Lányi, 2001). In what follows we shall examine whether these claims can be verified or refuted on the basis of empirical studies.

The financial sector is undoubtedly one of the most globalised service sectors of world economy and it is one of the sectors with the largest volume. The size of the financial markets, that is, the assets embodied in financial instruments exceeded the world's GDP more than fourfold in 2007. Despite the global economic crisis that erupted in 2008 the nominal value of total financial assets continued to grow, while its weight against the real economy (GDP) slightly decreased (Table 1).

If we look at the ratio of international and domestic markets in three typical market segments, we can see that the size of the domestic markets exceeds that of the international markets (which are affected by cross-border transfers). The aggregated data show that debt markets have reached the highest level of internationalisation. At the same time, domestic markets continue to dominate this segment. On the other hand, as a result of the general and sovereign debt crisis sweeping over global economy, the ratio of foreign debt securities declined significantly (*see Table 1, Chart 1).* The global decline in the total assets of banks is a direct consequence of the financial crisis that broke out in 2008, the collapse of

Table 1

THE INTERNATIONALISATION OF FINANCIAL MARKETS, 1995–2012

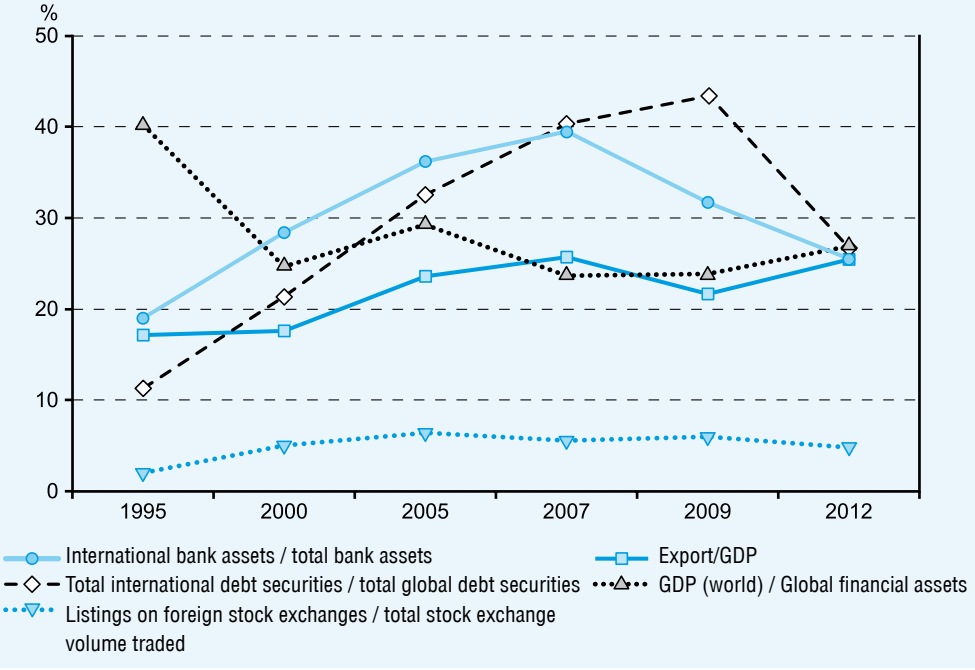
	1995	2000	2005	2007	2009	2012
Global financial assets (billion USD)	75,000	150,069	151,790	229,712	242,264	268,585
GDP (world)	30,125	30,995	44,445	54,545	57,920	72,216
Global financial assets/GDP (per cent)	**249**	**484**	**342**	**421**	**418**	**372**
Bank assets (billion USD)	42,484	37,900	56,000	84,785	95,500	116,956
Of which: international (CB)	8,072	10,765	20,263	33,440	30,267	29,800
per cent	**19**	**28.4**	**36.2**	**39.4**	**31.7**	**25.5**
Debt in securities (billion USD)	24,881	29,810	43,731	56,260	61,981	82,476
Of which: international (CB)	2,802	6,377	14,263	22,710	26,900	22,024
per cent	**11.3**	**21.4**	**32.6**	**40.4**	**43.4**	**26.7**
Stock exchange turnover (billion USD)	11,000	26,780	44,659	89,360	59,214	46,687
Of which: volume traded by foreign traders	n/a	1,323	2,863	4,981	3,526	2,228
per cent	**n/a**	**5.0**	**6.4**	**5.6**	**6.0**	**4.8**

Source: Author's own calculations based on IMF, BIS, WFE statistics.[5] CB: Cross-Border

Chart 1

THE INTERNATIONALISATION OF FINANCIAL MARKETS, 1995–2012

(Ratio of international total assets and domestic financial market assets, per cent)



Source: Author's own calculations based on IMF, BIS, WFE statistics

the interbank market and the reduction in cross-border corporate lending. In 2012, the ratio of the international bank market was only one-fourth compared to domestic bank markets and merely one-tenth of the size of the total global assets. The traded volume of companies listed on foreign stock exchanges remained low even during the peak period of capital market expansion and began to decline as a result of the crisis. Thus, it can be established that there is no evidence for the dominance of international financial markets over domestic financial markets. Despite the integrating effect of financial globalisation and the rise in cross-border financial transfers after the turn of the millennium, domestic markets continued to have dominance. The crisis resulted in a swift drop in volumes traded in international markets, that is, in the volumes of cross-border transactions (Gál, 2010).

The cyclical development of financial globalisation is verified by the expansion of international market segments during periods of economic boom and their decline at the time of crises. However, the unlimited development of financial globalisation is mostly hindered by the obstacles that indirectly strengthen the internal markets of developed economies. These obstacles generally emerge in the form of lasting investor preferences for domestic markets, the significant weight of the self-funding rate, the dominance of capital flow into developed markets and the agent problem that protects the interests of domestic companies.

LIMITATIONS OF FINANCIAL AND MONETARY INTEGRATION IN THE EURO AREA IN THE LIGHT OF THE CRISIS

In the next section we shall examine the structural problems of the financial market and monetary integration of the currency area in regard to the euro area crisis. The euro area was less able to deal with the shock of the crisis and exhibited less resilience that the United States, which resulted in a prolonged crisis. This section argues that the imbalances of financial globalisation were further worsened by the internal structural problems of financial integration in the euro area as well as by the geographical anomalies of the imbalances.

The reasons for the debt crisis of the euro area include problems with the structural and flexibility features of real economy, the shortcomings of financial-monetary integration as well as the anomalies of economic policy coordinated at the community level (debt management sacrificing growth; the sustainability problem of convergence criteria). Due to the debt crisis, the differences between developed and less developed countries became apparent, which conserved the deficit in the current balance of payments in the Mediterranean countries struggling with real convergence (predominance of import).[6] The direct cause of indebtedness was the huge cost of bank bailouts, which resulted in a budget deficit and growing debts (Rácz, 2012). The countries with the largest public debt and slowing growth are unable to boost their economy by depreciating their currency. The only thing they can do is to increase productivity by means of radical reforms which have social dangers (cut in wages).

The differences in the level of development within the euro area are also visible in the heterogeneous nature of the macroeconomic indicators (growth, inflation, current balances of payments). Due to this heterogeneity, the integration capacities of euro area countries also show significant differences. One of the direct causes of the debt crisis was that international financial markets proved to be much more integrated than the financial market of the euro area itself. As a consequence, the shock effects spilled over to the European markets more rapidly, driving the largest European banks

into a crisis (toxic securities). The lack of perfect market integration and uniform regulatory mechanisms not only brought interbank lending to a halt but it also made the coordination of bailout mechanisms more difficult. The debt problem generated by the bank bailouts had an important role in shedding light on the broader causes of the euro area crisis: namely, the lower level of integration in the financial markets, monetary union and real economy.

In the next sections we shall review the first two of these by also including the assessment criteria of territorial finances in the analysis. We shall examine some elements of financial market integration and the effect of the monetary union on the integration of European financial markets, shedding some light on the severe limitations of integration. It was mainly these anomalies that lead to the system-specific crisis of the euro area – which was also due to inadequate level of financial integration. We shall refute the view that the euro area is fully integrated in terms of its financial markets. The geographical differences arising from territorial heterogeneity, the special features of national economies, the regions as well as those of the centre and the periphery continue to characterise the financial markets.

The (spatial) limitations of financial market integration

The literature generally highlights the shortcomings of the monetary, fiscal and regulatory systems in connection with the debt crisis in the euro area. At the same time, their severe disturbances can be largely traced back to the imbalances of the financial markets and the real economy. The main deficit of integration is caused by the lack of perfect integration between real convergence and financial markets. *Mundell* (1973) was one of the first authors to see a solution to the problems, stemming from asymmetry, in the integration of money and capital markets.[7]

The European Union is the largest commodities and services market as well as the largest financial market in terms of its total financial assets. The euro area within the EU is the second largest financial market after the US.[8] The level of integration of the European capital market falls behind that of the American, not to mention the fact that the EU's institutional system, regulating the economy, is fragile and tends to struggle during a crisis, while the lack of a fully integrated fiscal policy restricts the effectiveness of its response to shock effects.

We shall now present the limitations of the integration of financial markets in the euro area which are sometimes overlooked by economic discussions. One of the reasons for this is that most of the analyses regarded the integration of financial markets well-advanced and completed and therefore the study of the integration of financial markets was overshadowed by the aspects of monetary and fiscal integration.

The gradually deepening European financial market – despite its integration – is not uniform; it consists of several geographically distinct financial submarkets. The largest of them is undoubtedly the euro area, which accounted for 70 per cent of Europe's (EEA's) total assets in 2012 (IMF GFSR, April 2013). The financial market integration of the euro area is limited by the fact that several financial markets with global significance, like Great Britain, Switzerland (and the Scandinavian states) were left out of both the broader and the narrower integration. This reduces the critical market size and financial depth of the currency zone, since the total assets of the markets that have been left out represent 52 per cent of the total assets of the euro area (IMF GFSR, April 2013). Certain financial

segments (currency/derivative markets) are focused in London, outside the euro area. For example, the capitalisation of the London Stock Exchange (LSE) reaches two-thirds of the stock exchange capitalisation of the euro area. From a regulatory point of view, channel islands belonging to both Switzerland and Great Britain, offering and "offshore" investment environment, drain the capital flows coming from the euro area. In the event of a crisis, both Switzerland and London are seen as safe heavens by investors in the euro area. As long as decision-makers in the euro area fail to achieve any real results regarding the issue of Swiss bank secrets or the regulation concerning London as an international financial centre, it is not possible either to ensure full stability for the European financial markets "internally".

With the introduction of the euro, the largest bond market and the second largest stock market of the world were created. The integration was most profound in the case of the bond markets, which was manifested in the dynamic increase in the volume of the bond market, the convergence of bond yields and the increase in cross-border transfers. As a result of the interest rate convergence in the Eurobond markets (which resulted in decreasing bond yields), the countries of the Mediterranean periphery were able to get funding on the bond markets well below their rate of inflation compared to the period before the introduction of the euro. All this contributed to the "easy' indebtedness of countries with low productivity even before the crisis. The ratio of assets related to the single European market represented a growing share in the balance sheet of financial actors[9] *(Gál, 2010).* Since the crisis, due to the strong divergence, geographically segmented differences have emerged in the Eurobond yields within the euro area that are similar to what they were before the introduction of the Euro. Today there is a strong tendency in the banking sector to reduce the ratio of foreign debt securities.

European share prices and yields tend to move together after the introduction of the euro and are much more dependent on the European rather than the local shock effect. Taking into account the size and integration of the stock exchanges the world of European stock markets is fragmented despite mergers (in 2007 and 2012 respectively, the market value of the New York exchanges was 2.5 times and 1.6 times of the aggregate value of the London and the Deutsche bourses taken together). Another factor going against European capital market integration is that the largest stock exchange mergers took place in the transatlantic space rather than in the EU (WFE Annual Report, 2008, 2013).

Fundamental changes have taken place on the European financial markets and securities and institutional investors have begun to gain importance in the euro area too. Despite all these changes, funding provided by banks continued to have a dominant role.[10] Bank assets accounted for 48 per cent of the total financial assets within the euro area in 2007 (18 per cent in the US), which grew to 52 per cent by 2012 (ECB, 2013). Due to its decisive role, the optimal integration of the financial markets in the euro area would not be possible without the perfect integration of the banking sector.

One of the criteria of integration is the intensive grown of cross-border capital flow. The provision of direct cross-border services picked up with the introduction of the euro and investors began to trade on the basis of a pan-European approach. Financial transfers also increased between the euro area and other parts of the world. At the same time, cross-border lending by banks – especially in the retail markets – is still not significant. In 2007 less than 500 of the 7400 banks in the euro area provided cross-border banking services (ECB, 2009).[11]

The corporate and ownership structure indicated a lower level of integration in the banking sector too. The most important change that affected the spatial organisation of money markets was the increase in the stakes of foreign banks through mergers, acquisitions and cross-ownership. The main driver of the concentration and merger process which had accelerated before the introduction of the euro area (60 per cent of which occurred in the banking sector) was the establishment of large banks with a much smaller size than that of American large banks and the first steps towards creating pan-regional financial conglomerates (NORDEA, Fortis-Dexia, Unicredit) (Gál, 2010). The extension of the geographical coverage of large banks strengthened the synergy effects. At the same time, cross-border bank mergers, similar to the consolidation taking place in certain countries, did not materialise except for a few cases.[12] M&A and the purchase of subsidiary banks, however, do not only influence financial stability. When the cross-border activities of financial service providers expand, individual national markets may become vulnerable because of the presence of a particular service provider which involves systemic risks. Limitations on the cross-ownership between the banking systems of larger member states have been further enhanced by the structural differences between the national banking systems, the anomalies arising from the different corporate governance and national regulation systems and, last but not least, by the cultural differences (Gál, 2010).

The share of foreign branches and subsidiary banks in the total assets of the banks operating in the euro area declined from 19 per cent before the crisis to 16 per cent by 2012 and then to 13 per cent by 2013. These mean values show a significant variance of 5 to 30 per cent by country. (ECB, 2014).[13] However, these average figures hide the huge differences between the countries as far as the share of foreign ownership in banks is concerned. The ratio of foreign ownership in banks in the euro area is 15 per cent on average (below 10 per cent in the largest bank markets). Paradoxically, the banking systems of Eastern-Central European countries (in and outside of the euro area) with an average 80 per cent foreign ownership – through subsidiaries of the parent banks in the euro area – were much more integrated in the euro area than the banking systems of the core countries.

One of the symptoms of the euro area crisis is the risk of contagion enhanced by the exposure to foreign banks. The shortcomings of the integration among the national banking systems of the euro area are also demonstrated by the fact that the cross-border flows between the member states are recorded as external claims and/or total debt, thereby generating external imbalances even within the euro area. (The situation would be different with fiscal and political integration.) In the wholesale banking market the period of loan expansion was followed by a boom in cross-border capital flow. One-fourth of the total claims of EU banks were lent out to PIIGS countries (Portugal, Ireland, Italy, Greece and Spain). Exposure to the PIIGS countries was one-third for French and German banks, which shed light on interdependence in the debt crisis.

As an immediate result of the crisis, cross-border interbank and repo markets became frozen and the volume of lending, which has picked up since then, was much lower with higher interest margins (EURIBOR), which showed very strong territorial variance. The interest rate convergence[14] in corporate interest rates on loans reversed, which not only set back cross-border lending but also significantly increased the territorial variance of interests on loans.

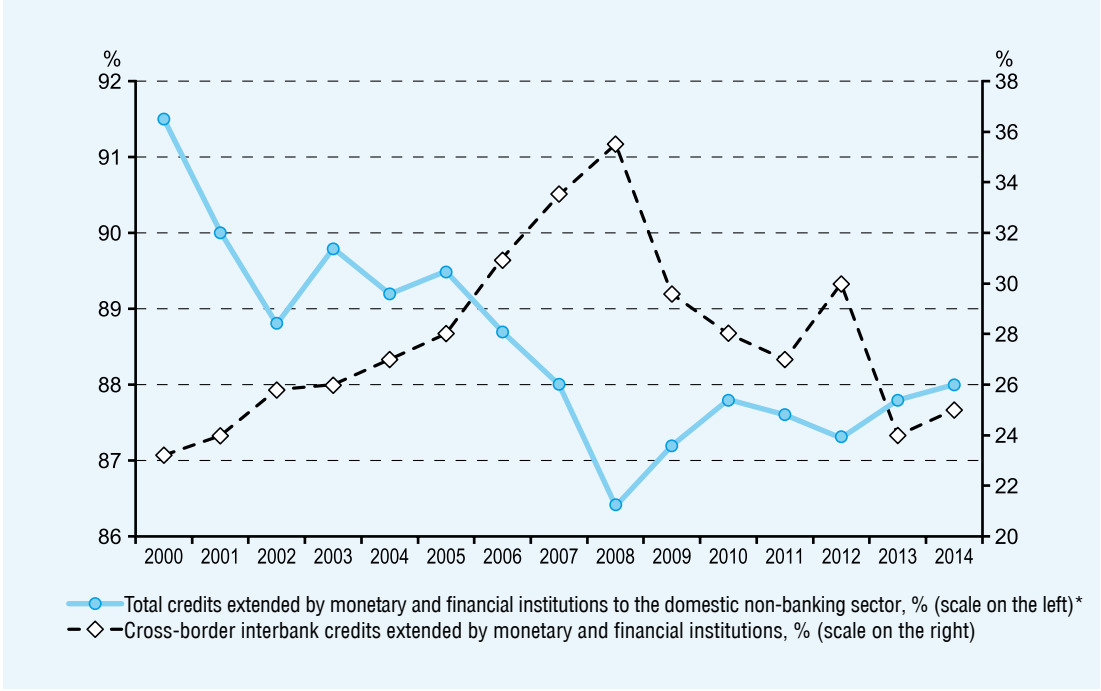
Since the outbreak of the crisis there have been strong signs of renationalisation in the banking markets of the euro area. The decline

in cross-border interbank lending has been spectacular since the eruption of the crisis: it fell from 35 to 25 per cent between 2008 and 2014 (*see Chart 2).* The cross-border claims of banks, operating in the core countries of the euro area, against the peripheral countries fell from 1.6 thousand billion euros to less than half of this amount by 2012 (Gros, 2013). Simultaneously, total domestic loans extended to the non-financial sector gradually increased. The ratio of domestic lending within total lending, which had been quite high even before, reached 88 per cent in 2013 (Chart 2). Cross-border loans extended to the non-financial sector dropped to 7.6 per cent, while lending outside the euro area was 4.5 per cent (ECB, 2013). This means a step-back not only in integration; the decline in cross-border lending has an unfavourable influence on the peripheral countries with a deficit in the balance of payments. At the same time, renationalisation prevents the transmission of financial shocks and the systemic risk is much lower as well when the amount of cross-border debt is low.

In summary it can be said that the integration of the financial markets in the euro area was not full and deep enough, and the crisis itself also hindered this process. The creation of the euro area thus failed to bring a significant change in several market segments as far as the growing prevalence of cross-border financial services is concerned (which is especially true for transfers between core areas).

Chart 2

THE SHARE OF CROSS-BORDER INTERBANK LOANS EXTENDED BY FINANCIAL INSTITUTIONS IN THE EURO AREA AND THE CHANGES IN THE TOTAL DOMESTIC LOANS EXTENDED BY FINANCIAL INSTITUTIONS TO THE NON-FINANCIAL SECTOR, 1999–2014



*Outstanding total domestic credits as a ratio of total lending (except for lending in the euro system)

Source: Author's own editing based on the publication Financial Integration in Europe, April 2014, ECB

Consequently, banking activities that rely on national markets remain to be dominant despite the positive changes. Cross-border activities are much less significant in the largest European economies, which means that the predominance of the national banks continues to prevail.

The spatial limitations of monetary integration

The benefits of the monetary union, which became full-fledged with the introduction of the single currency, were demonstrated by many, though there was no real single market behind it.[15] The single currency, however, was not introduced as a result of real integration, which enhanced the negative effects of the asymmetric shocks in the euro area made up of countries with different levels of development, macro regions and regions.

According to the theory of Optimum Currency Areas (OCA) which served as the theoretical foundation of the euro area, the success of the integration processes in the various sectors – commodity markets, prices and wages, the labour market, the capital and money markets, the institutional system – is an essential condition for the monetary union. In other words, this theory emphasises the importance of structural and flexibility features of the economy during the adaptation to asymmetric shocks (Mundell, 1961, 1973; Balassa, 1961; Kenen, 1969; MacKinnon, 2001).

Monetary integration is not only a community-level or country specific feature; it may be affected by subnational (regional) shocks as well. The establishment of the monetary union had a considerable impact on territorial inequalities, for instance on the regional effects of asymmetrical shocks. The negative economic consequences of unexpected shock effects are stronger in the periphery and the underdeveloped regions. Thus, the monetary union cannot be regarded as an optimum currency area on the basis of the territorial effects of asymmetric shocks either.

This problem becomes especially important in the light of the fact that in order to manage these shocks, the euro area lacks precisely those assets which monetary unions need the most according to the theory of optimum currency areas. These include workforce mobility between regions and central budget transfers. For Mundell an optimum currency area is a group of countries in which members respond symmetrically to external shock effects. This neoclassical theory, however, presupposes a homogeneous territorial unity and processes strengthening homogeneity which lead to the equalisation of differences among the regions (Cohen, 2000). As a result of this presumed homogeneity, the countries making up monetary unions will be equally exposed to external shock effects (symmetric shocks). Starting from this premise, it was found sufficient in the euro area to determine the uniform nominal (Maastricht) convergence criteria that are meant to ensure equalisation. At the same time, the theory did not examine the adjustment costs imposed on less developed countries and regions which stem from the heterogeneity of the currency area.

The monetary union was unable to solve the heterogeneity problems that stem from the various levels of development and they continued to strengthen due to the crisis. This failure was partly due to the fact that the economic integration did not follow the right order. Monetary integration preceded real economy, financial market (and fiscal) integration. On the other hand, nominal convergence criteria have set parameters for which no real convergence criteria were required. However, due to the heterogeneity of real conditions and the shortcomings of the tools of economic policy the sustainability of these convergence criteria

cannot be guaranteed either. Regarding European integration, the mitigation of asymmetric shocks is rendered more difficult by the fact that the Union is made up of countries and regions with a different level of development. There is no unified and mobile labour market and wages are less flexible (with differences by country) than in the US (Martin, 2001).[16]

The shortcomings of real economy and real convergence, as well as the late or inadequate responses to the asymmetric shocks of the global economic crisis fit into the spatial economic system of centre vs. periphery. The territorial disparities of shock effects show that both demand side and supply side shock effects are smaller in the core countries of the EU than in the peripheral states. This approach can be used to interpret the imbalances (competitiveness, indebtedness, market and funding bubbles, institutional dysfunctions) of the Mediterranean, the PIIGS and the East-Central European peripheral countries.[17]

In the case of euro area countries and subnational regions, the more asymmetric their economic structure and the larger the territorial disparities in terms of economic efficiency, the higher the adjustment costs of responding to external shock effects.[18] The euro area is not an optimum currency area precisely because the common monetary policy in itself cannot treat asymmetric economic shocks and the additional national and regional exposure differences flexibly. The main reasons for the latter are summarised below.

- The exposure to shock effects largely depends on the economic structure of the regions. Diversified countries with a more open economy are more resilient than countries with a more specialised economy.[19]
- In the case of economies with low capital and labour force mobility and a traditional sectoral structure, including several regions of Europe, the shock effects can generate lasting cumulative processes. These can further deepen regional inequalities, generating permanent inflationary pressure in certain countries and unemployment in others. It is only true in theory that the increase in the free movement of capital reduces the susceptibility to shock effects and the loss from the elimination of independent national monetary policy. Capital mobility and the monetary union have significant advantages at the micro level, while its macro-level effect depends on several other factors. Therefore the mobility of the labour force and capital in itself is not a sufficient precondition for an optimal currency union.
- There are significant disparities among the regions in terms of prices, costs and the susceptibility to inflation. High inflation can be the engine of growth in highly active regions and at the same time an obstacle to development in regions with a low inclination for growth.
- There are considerable regional differences in the single currency union as far as the accessibility to compensatory transfers that can mitigate asymmetric shock effects are concerned. At the nation state level, certain fiscal systems can automatically compensate the regions affected by external shock effects which lack independent monetary tools through taxing and budgetary subsidy systems. With monetary policy becoming a community-level policy, the regions were deprived of these automatic compensatory transfers. Contrary to the US, there is no integrated fiscal policy within the euro area.[20] Real fiscal integration could help adaptation to the shocks.

The new theory of economic geography, which discusses the emergence of regional concentrations that can be characterised by larger returns to scale, puts the emphasis on the cumulative effects of asymmetric shocks which deepen territorial disparities (Krugman, 1991). The literature, however, addresses this issue mostly at the level of national economies, ignoring this problem from the aspect

of monetary policy. The past fifteen years of monetary integration have shown that after the introduction of the single currency it is impossible to handle the territorial disparities and the differences in the level of development within the currency union by means of monetary tools. Several studies (Licheron, 2009) have shown that the ECB's interest rates were stable for a longer period than those of the FED, which indicates that the monetary authority overweighs the central countries with a low inflation rate and refuses to raise interest rates despite the inflationary pressure coming from the peripheral countries (Zsibók, 2011, 2012).

Exposure to chock effects, however, varies not only at the country level but also at the regional level. Exposure to shocks affecting the subnational regions can be analysed by comparing the data series of the periods before and after accession (increase in GDP, price and wage levels)[21] *Ramos et al.* (2001) have shown that accession to the euro area in most cases fails to change the relative position of the regions in the national economies. Regions showing low correlation with the corresponding indicators of their national economies are almost sure to have a similarly low correlation with European aggregates. At the same time, developed regions that further strengthen their already strong position within the integration can clearly be seen as the winners of monetary integration. This also means that shock effects and monetary policies responding to them affect individual regions differently. Shock effects will be more symmetric in regions (countries) which have a sectorally more diversified economic structure, compared to peripheral regions, characterised by one-sided specialisation. We have addressed the issue of asymmetric shocks at the regional level in a former study dealing with Hungary (Gál, 2004).

According to the analyses studying the territorial impacts of monetary policy, monetary policy responds more strongly to the processes of the central region. In such cases, the monetary authority tries to control the inflationary pressure coming from the centre and the asset price bubbles by means of monetary tightening, which affects less developed regions asymmetrically (Dow and Montagnoli, 2007). *Gardiner et al.* (2011) have found that the spatial distribution of inflationary pressure, unemployment and recession is unequal in Great Britain, that is, high interest rates punish low performing regions, situated further from the centre, for the economic overheating of the central region.

Deepening the integration in the euro area and strengthening real economic convergences can only take place simultaneously with internal institutional and regulatory reforms. We can also establish, however, that neither a uniform monetary policy, nor fiscal integration in itself can facilitate real convergence; in order to achieve that, economic, labour market and financial market integration needs to be deepened further. As a consequence, the euro alone was not able to become a tool for convergence and essentially became an obstacle to the convergence of less developed countries and regions.

SUMMARY

Financial globalisation is a set of complex processes determined by spatial factors which also represents the spatial expansion and the geographical integration of the financial markets. By reviewing the theories that emphasise the limitations on the spatial dimensions of financial globalisation (such as its function to create an information centre) and on the global integration of the financial markets, this paper intends to provide a new perspective for the literature on financial globalisation. One of its main claims is that

on the one hand, despite the integration of international markets, the national markets continue to be dominant. Despite the broader opportunities of diversifying portfolios in a geographical sense, investors prefer domestic investment opportunities that are closer in space. On the other hand, technological development has not reduced the information asymmetry between remote geographical locations and failed to improve the transparency of international financial systems. Financial globalisation in itself has not lead to the emergence of perfectly efficient markets.

The second part of the paper analyses some deeper, structural reasons for the euro area crisis through the methodology of territorial finances. It points out that the balance issues of financial globalisation were aggravated by the shortcomings of the financial market and monetary integration in the euro area. This section reviewed the financial market and monetary integration problems in connection with the debt crisis of the euro area, which explain the reasons for its prolonged crisis. The differences in the level of development within the euro area are also visible in the heterogeneous nature of the macroeconomic indicators (growth, inflation, current balances of payments). Due to this heterogeneity, the integration capacities of euro area countries also show significant differences. The direct cause of the debt crisis was that international financial markets proved to be much more integrated than the financial market of the euro area itself.

The overview of the integration process of the euro area's financial markets shows that paradoxically, despite the introduction of the euro, the perfect integration of the financial markets has not taken place, and integration has had less effect on these markets than in other areas. Since the outbreak of the crisis there have been strong signs of renationalisation, that is, an intensified disintegration of the financial markets. Integration failed to bring fundamental changes in deepening cross-border services, and the dominance of banking activities based on national markets, especially in the largest economies, has not diminished considerably.

The benefits of the monetary union, which became full-fledged with the introduction of the single currency, were demonstrated by many, though there was no real single market behind it. The single currency was not introduced as the culmination of real integration, but it became an inhibiting tool of integration. The monetary union cannot be regarded as an optimum currency area on the basis of the territorial (country-specific and subnational) effects of asymmetric shocks either. In this respect, the introduction of the euro proved to be premature for several countries which joined the EU in the first round. Only the centre of the euro area was prepared for this.

It can be established that in the case of individual countries as well as regions within the euro area, the larger the territorial disparities in terms of economic efficiency, the more significant the cumulative effects of asymmetric shocks (and the adjustment costs of responding to external shock effects). This also means that the shock effects and the monetary policies responding to them affect the individual regions differently. Monetary authority responds more strongly to macro regional processes, overweighing central countries, as well as core regions at the national level.

Uniform monetary policy – along with fiscal integration – also failed to facilitate real convergence; in order to achieve that, economic, labour market and financial market integration should be deepened further. Therefore the euro in itself was unable to become a convergence tool and essentially became an obstacle to the convergence of less developed countries and regions.

Notes

[1] Rather than being homogeneous, financial markets operate as segments as well as spatially divided markets where the price of products and services depends on the geographical location of the site where the activity is being pursued.

[2] The tenets of regional financial studies developed by new and post-Keynesian schools have gained importance in economics (for more on this, see 2012 a–b). A monograph entitled "Financial markets in the global space" can be seen as the first comprehensive overview of regional finances/financial geography, which applies its research methods to international financial markets (Gál, 2010).

[3] Most of the extreme economic effects are local, exerting their influence in a given distinct space, in the neighbourhood of the issuer (local positives externalities) (Marshall, 1920). In Krugman's new theory of economic geography, which also addresses the concentration of economic activities, the impact of local externalities and spatiality in general are crucial (Krugman, 1991). The imbalances that fragment the economic space, the equal distribution or, for that matter, the strong concentration of economic agents and other resources have both positive (cost saving) and negative (cost-driving) externalities (Gál, 2012b). In the new institutional economy based on transactional costs the impact of the externalities decreases in proportion to the distance from the issuer.

[4] Instead of geographical distance, the focus in financial markets is gradually being placed on the relative geographical position of market participants, their accessibility and their ability to establish relations in space through networking (Gál, 2012a).

[5] International Monetary Fund, Bank for International Settlements, World Federation of Exchanges

[6] Due to the depreciation of the exchange rates in real value and higher inflation, the competitiveness of the periphery decreased, whilst cheaper resources available in real value lead to overconsumption and asset price bubbles (Spain). Paradoxically, the pace of their convergence and competitiveness (wage outflow exceeded the increase in productivity) slowed down just as they joined the euro area. The main consequences that resulted from the damage to competitiveness involve fiscal problems, but indebtedness continues to ruin the competitive position of certain countries as a cumulative process (Artner – Róna, 2012).

[7] Member states can eliminate the asymmetry shocks by buying each other's securities because these can be compensated for by the price changes of the securities.

[8] The pan-European market after the introduction of the euro is larger both in terms of its size and its performance, compared to the total of the national markets before its introduction.

[9] In 2003, the share of euro-denominated "international bonds" reached 20 per cent. 12 per cent of the shares on the European stock exchanges and 14 per cent of the shares on the American markets were foreign securities in 2007 (Gál, 2010).

[10] The total domestic credits of the EU-27 was 158 per cent of the GDP in 2012, market capitalisation accounted for 62 per cent of the EU's 2012 GDP (in 2004 this ratio was 70 per cent) (IMF GFSR, 2013).

[11] Financial Integration in Europe, ECB, April 2009

[12] As a result of the concentration processes within the borders, the bank markets of the EU–15 cannot be considered particularly concentrated, although the Herfindahl concentration indices grew from 370 to 540 between 1997 and 2003. The highest values were seen in Finland (2420), Belgium (2065) and the Netherlands (1744) while by far the lowest value

was recorded in Germany (173). (ECB Financial Integration in Europe, 2005)

[13] Financial Integration in Europe, ECB, April, 2014, p. 31, Annex: p. 23

[14] The interests of bank loans showed larger variance on the regionally segmented retail markets, which are also determined by local differences.

[15] One of the benefits was that the euro, which replaced the different local currencies, eliminated exchange rate volatility and the speculations related to it. Conversion transaction costs were eliminated, and converging price levels (decreasing interest rates and increasing price stability) made it possible to better leverage on market opportunities.

[16] The euro area is in a much less favourable position than the previously established monetary unions: the mobility of the labour force is low even within individual countries, and only one per cent of the common GDP is redistributed by the central budget. Several studies have found that the US responds to individual shocks much faster, mainly due to the larger factor mobility (Bayoumi − Eichengreen, 1992).

[17] Similarly to the more profound integration, as it were, of the financial markets, several considerations of economic policy that adjusted better to the OCA theory also prevailed in the course of accession to the Eastern-Central European euro area: exchange rate stability was important for economic structure (Slovenia) or for funding channels (the Baltic states); and the adaptability criteria of the micro economy gained more importance (Slovakia).

[18] With the variance of specific GDP and on the basis of the ratio between the most developed and the least developed regions, the territorial disparities measured in the euro area are twice as much as in the US. The dispersion variance of regional unemployment indicators is also larger, and the migration rate of the labour force is hardly one-fourth of that of the United States.

[19] Peter Kenen added the aspect of heterogeneous economic structure to Mudell's theory of optimum currency area, while Ronald McKinnon sees foreign trade integration as a key factor in the deepening of the optimum currency area (Kenen, 1969; McKinnon, 2001).

[20] The total budget of the EU's common "quasi" fiscal policy was EUR 120 billion in 2006, while the federal budget of the US was EUR 3.3 trillion (Gál, 2010).

[21] Ramos et al. (2001) used indicators showing the rise of per capita GDP and price and wage levels to examine the changes in the correlation coefficient between the growth rate of individual regions and the relevant national economy when compared to the EU's and the euro area's aggregate indexes (Gál, 2010, p. 209).

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