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The Banking Functions of the Hungarian Urban Network in the Early 20th Century

**by
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1 Introduction

This paper examines the impact of the Hungarian banking system on regional and urban development in the early 20th century, when local banks were important territorial elements of the financial space developing close links to regional economic structures. The basic concept of the study is that there is closer connection not only between the banking sector and the economy as a whole, but between the banking sector and urban development as well. This is coincided with the argument of the American Historical Geographical school (*Conzen,* 1977) says that the features of the urban network are in strong correlation with the spatial structure of banking system and the diffusion of financial innovations. We considered the spatial breakdown of capital flows are one of the most important indicators of the regional and urban transformation (*Gál,* 2005).

The Hungarian banking system looks back to a history of more than 160 years. Examining the impact of the banking system on regional and urban development is reasonable in the second half of the 19th century, since in Hungary developed an extensive financial system with a well researchable statistical database (*Vargha,* 1913). The Hungarian banking system was well developed in comparison to international standards by the first decade of the 20th century (*Kövér,* 1991; *Tomka,* 1996). Moreover, it became one of the most rapidly growing sectors of the domestic economy of that time. The evolution of the Hungarian banking system with regards to the phases of industrialization, despite it has developed in a latecomer country has gone through the similar development stages of the modern financial system with certain delay than the more advanced economies (*Rudolph,* 1976; *Berend–Ránki,* 1974).

Studies analyse the development factors of urbanization although, properly identify the close connection between urban and economic development many of them still emphasize the one-sided determinant role of the industrialization, which is considered as the sole engine of the urbanization (*Pollard,* 1980). Actually „…the world of the cities is the centre of the money market and we should not forget the fact that the money is the invention of urban civilization. The development of the financial system not only encouraged economic development but played as important role in urban development as industrialization itself (*Bairoch,* 1988). The basic idea of our research is that banking system had greater importance in economic development, than in our days. On the one hand the intermediate role of banks was more significant in economic modernization since the provision and reallocation of the necessary capital resources was channeled through the banking system. This also meant that the spread of financial innovations was quicker and more comprehensive than other economic innovations (*Gerschenkron,* 1984; *Cameron,* 1967, *Good,* 1973). On the other hand, *there were closer connections not only between the banking sector and the economy as a whole, but between the*

banking sector and urban development as well. Banking service functions became one of the main roles of cities (*Hohenberg–Lees,* 1985).

Besides studying the regional characteristics of local money-markets on the basis of the territorial breakdown of banking aggregates, the paper analyses the urban network of the early 20th century according to the cities' banking function in order to identify those groups of towns together with their hierarchical order, which became the driving force of modernization, as well as those too played less determinant role in the economic development (*Gál,* 2005). This paper uses the method of CHRISTALLER'S central-place theory (1933) in order to define the central-place functions of the Hungarian cities based on banking aggregates (deposits and assets). The survey gives the opportunity not only to analyze the regional breakdown of the banking network, but to compare the economic and urban development of banking centres. This analysis contributed to the change of the traditional view of the „developed West" and the „underdeveloped East". A special significance is attributed to the comparative analysis of the banking function of cities by the fact that in peripheral situation the characteristics of modernization and capitalist development are almost exclusively connected with the urban network. It is also argued that regional inequalities were very much determined by economic, especially banking functions of the urban-network.

2 The dimension of the Hungarian banking system in the age of the Dual Monarchy (1867–1918)

2.1 The institutional setting of the banking system

The birth of the modern banking system in the Austro–Hungarian Monarchy can be dated back to the 1850s–1860s. In Hungary radical changes started with the *Austro–Hungarian Union* (1867) *but the formation of a modern banking system* was completed by the 1880s only. While statistical data from year 1847 reported 26 banks only, their number in 1914 was above five thousand. By adding the number of post office, credit unions and savings bank branches this figure goes up to a value of nearly ten thousand (*Vargha,* 1913). Through the formulation of a modern system the earlier socially and spatially isolated credit system developed into an *institutionalized banking system*. The credit institutions in Hungary had been formed in a diverse type of institutional groups in terms of their organisational structure, business lines and functions. Under Hungarian circumstances with low capital resources the formulation of savings banks with small equity base was the only reasonable and possible way of bank foundation. The largest of them was the Pest First Hungarian Savings Bank though it was the Brassó [Braşov] Savings

Bank founded in 1831 that was really the first Hungarian banking organisation. The Pest Hungarian Commercial Bank of founded in 1841 was the first bank founded in Hungary).

The *commercial banks* (mobile banks and traditional commercial banks) together with savings banks *having been transformed into a joint-stock company and practically functioning as commercial banks since the 1870s* were the key institutions of the Hungarian banking system and also they had the largest capital funds. The differences between banks and savings banks diminished then ceased since the mid–1800s, thus savings banks were also operating as profit oriented institutions in the organisational form of a joint-stock company. This system had a hidden element, namely *private banks* without the compulsory provision of statistical data that had key positions in Budapest and the largest cities in Hungary in the initial phase (*Kövér,* 1995b; *Gál,* 2004). Their importance decreased to a much lower extent by the end of the 19th century. The number of mortgage banks – specialized mostly for mortgage credit – was less within the banking network but their capital assets were large. The majority of banking organisations belonged *to the category of credit union* as they were mostly operating in small villages but due to their low capital assets and minor importance they were unable to serve as carriers of modernization for rural areas. The *central bank* was founded in 1851 and operating under the joint name of *Austro–Hungarian Bank* since 1878 built an extensive network system in Hungary as well. It became the major coordinator of the Hungarian economic and credit system and ensured liquidity for the Hungarian banking system. The Central Bank – due to the absence of other bank resources in the initial phase –was the major credit provider for the Hungarian economy. With the development of the banking system the Central Bank gradually terminated these functions and concentrated mostly on the regulation of currency rates, the stability of the credit organisation system and on the refinancing of savings banks (*Kövér,* 2002). Before the First World War. the central bank had 42 branch offices (3 in Croatia) and 103 agencies throughout Hungary.[1]

According to the description of a contemporary bank expert, banking, as a strategic field of service sector, had the following missions: 'the accumulation of capital surplus and the most appropriate distribution of the collected sums. Its additional tasks are the regulation of financial circulation and safeguarding the economy from getting into critical situation due to the absence of financial resources' (*Vargha,* 1913). The new financial organisations were not only passively following the demands for financial services but through the adoption of foreign banking practice they were actively facilitating the accumulation and mobilisation of capital, as Hungary had low capital resources in the initial phase of their moderniza-

[1] Besides the financial institutions listed here the network of post savings banks and municipal savings banks of smaller importance should be mentioned here.

tion. Credit organisations got into contact with economic actors not only through their banking transactions but as investors they also contributed to the foundation of new ventures (*Katus,* 1979).

Especially developing markets of the eastern and southern regions, were heavily competing with each other for funds to invest, and this exhausted their reserves leading to a complete bankruptcy during the 1873 stock market crisis. The general economic recovery period that followed the crisis gave a new start to the development of the banking system. Savings banks – that were founded in extensively between 1840 and 1867 but new offices were opened at a slower rate after the Union – survived the crisis in a relatively good condition, as while a series of banks were closed during the crisis, only 14 savings banks went into bankruptcy. This is also due to the fact that the Vienna-centred capital market of the Austro–Hungarian Monarchy was not yet in a close contact with Hungarian banking organisations. Hungary's largest banks were founded in Budapest and *the local financial organisations of the dynamically developing Hungarian cities were mainly savings banks functioning in the corporate form of joint-stock companies* (or were credit unions of minor importance) that – even if their name kept the term of savings bank – were practically operating as deposit banks.[2]

In Hungary banks not only collected savings but were doing all types of 'banking businesses', thus instead of functioning as savings banks, friendly societies with social functions, they were operating as joint-stock company banks for achieving high dividends and *this fact completely eliminated the functional differences between savings and commercial banks*.

Thus, *this universal banking system* was dominating Hungary's dualistic period and the commercial and savings banks (this latter one is the major financial corporation form at Hungarian ethnic territories) had a mixed profile from the finance of investments to capital issue (*Szász,* 1961; *Illés,* 1992). During the 19th century *banks* and even *savings banks were functioning as universal commercial banks* and this increased their importance in the economic development of Hungary following the Austro–Hungarian Union. *Credit banks (mobile banks*), dealing with infrastructure investments and financing industrial and financial organisations through issuing bonds, allocated most of their own and foreign investors' resources for industrial and infrastructure development projects. This was a new way of banking finance trying to improve Hungary's poor economic conditions with low capital resources and serving for the country's boosting economic modernization in the mid–19th century. In legal-corporate sense the Hungarian banking system may be regarded as more universal than its German and Austrian counterparts as its specialisation level and cooperation with other banking institutions was narrower and it offered the widest range of banking services both on macro and local levels. For example mortgage banking was very widely available in Hungarian bank and savings bank offices while in other countries it was separated into an independent

business. However, if we define active investment activities and appropriate liquidity as the other necessary criteria of the universal banking system, we must say that *Hungarian banks started their direct industrial investments* with a relative delay and even if their volume significantly increased in the first decades of the 20th century their importance remained low (for example the share of industrial stocks of the Pest Hungarian Commerce Bank accounted only for 3–4% of its total assets and it was still only 10% before the First World War) (*Tomka*, 1999a). On the basis of the different indices (equity/deposit, equity /loans) of banks we must say that the liquidity level of Hungarian banks was lower than their German and Austrian counterparts.

2.2 The size of the banking network

The rise and the culmination of the development of the Hungarian banking sector took place between the 1890s and World War I. The statistical documents of the period provide a more detailed picture on the spatial diffusion of the bank sector generated innovation, on the locations of banks, on the spatial structure and geographical features of the banking system. Examining *the size of the banking network* we can see that until the Austro–Hungarian Union the increase in the number of Hungarian banks was slow. Their number was 36 in 1848, 40 in 1860 and 60 in 1866. After the Austro–Hungarian Union (1867) the fever of new bank foundation rapidly increased the number of banking institutions their number was 220 between 1866–1870 1,108 in 1900 and in the years of World War I more than 2000 local banks were operating in Hungary without an extensive branch network. Between 1904 and 1913 the total number of banks, savings banks (and mortgage banks) increased from 1,150 to 1,845. This was a 61% growth rate within the last ten years compared to the 42% growth rate of the previous decade. The maximum growth rate of savings cooperatives was in the period between 1894–1904 (this is a 212% growth rate) decreasing to 30% in the last few years before World War I. The belated banking sector development of Croatia between 1899 and 1909 was counterbalanced by the rapid (330%) extension of its banking institutes consisting mostly of credit unions (*Table 1*).

The number of banking jobs is another indicator of this sector's importance. When reviewing the share of banking sector in employment since 1910 until now, we can argue that in year 1910 only 0.28% (19,400) of the active wage earners was employed in the banking sector indicating a very low share of services in general in the early stage of industrial societies. This value increased to 0.64% after the Trianon Peace Treaty (1920) on the basis of Hungary's present-day territory due to the population loss. This exceeded the European average only slightly but considering the country's strongly reduced territory and economic potentials was too high for them. The intensification of bank consolidation processes in the 1930s reduced the

number of jobs to a slight extent but the massive closure of banks due to their nationalisation in 1948 heavily dropped the number of jobs in the banking sector. The number of bank employees reduced and it was only in the 1980s when the number of bank employees reached to the level of the 1910s.

Table 1

Changes in the number of financial institutions and the share of Budapest in the Hungarian bank network 1894–1913

Year	Banks, savings banks, mortgage banks		Share of Budapest, %	Credit cooperatives (credit unions)		Share of Budapest, %	Total		Share of Budapest, %
	Hungary	Budapest		Hungary	Budapest		Hungary	Budapest	
1894	809	26	3.2	789	28	3.5	1,598	54	3.3
1899	982	34	3.4	1,381	58	4.1	2,363	92	3.8
1904	1,150	42	3.6	2,462	118	4.7	3,612	160	4.4
1909	1,515	84	5.5	2,910	127	4.3	4,425	211	4.7
1913	1,845	121	6.6	3,191	91	2.8	5,033	212	4.2

Source: The author's own calculation on the basis of the annual volumes of the Hungarian Statistical Yearbook.

2.3 Budapest: dominance of the national banking centre

Budapest had a special role in the modernisation of Hungary during the dualistic period. Budapest was the most important single *bridgehead* of modernisation in the Carpathian Basin. The modernisation processes originating from several processes were all concentrated in Budapest. By the beginning of the 20th century the subcentres of modernisation outside Budapest had already been shaped but despite Budapest had far better per capita 'development' (modernisation) indices than it would have derived from its population size (*Beluszky*, 1998). This is especially true in case of *banking sector* where successful modernisation was the outcome of *the large-scale institutional and spatial concentration of capital*.

By the end of the 19th century *all the major Budapest seated banks became the largest in* Hungary and were determining the general development of the Hungarian banking sector until 1918 and some of them, also during the following interwar period. The big fives, the top 5 banks were *Pest Hungarian Commercial Bank, Hungarian General Credit Bank, Hungarian Mortgage Bank, Hungarian Discount and Exchange Bank, Pest First National Savings Bank*. Studying the importance and role of the major banks in the concentration of capital resources we can argue

that *the importance of (Budapest-headquartered) major banks in the concentration of capital in Hungary* was far less than in Germany or Austria (*Tomka,* 1999b).[2] In 1890 *the top five banks of Budapest* owned 18% of total assets and 27.3% in 1909 and 25.7% in 1913. Their share also slightly decreased in equities from the 26.8% in 1900 to 21.8% by year 1910. *The largest 15 banks – with more than 10 million crowns equity base – were all located in Budapest* concentrating 35.2% (39.7% in 1900) of banking sector's total equities and 41.6% of total assets (*Table 2).*

In the first ten years of the 20th century due to *the rapid spread of provincial banks and the spatial expansion of banking network (decentralisation)* the role and importance of the banking services of Budapest significantly decreased in some lines of banking. *This was intensifying the de-concentration processes of the banking sphere* and to some extent *reduced the overwhelming dominance of Budapest in the banking sector*. *The increase of the concentration of Budapest's bank sector halted in the early 1900s and stagnated for a while. In Budapest's share in some banking lines there was some decrease* and some signs of de-concentration, while the share of provincial cities increased within the Hungarian banking system (*Table 2*). The share of Budapest banks in the total *equity stock* of Hungarian credit institutes decreased from 51.9% (1894) to 46.6% by 1910, catching the peak with a value of 53% in year 1899.[3] Budapest – as a national financial centre – preserved its leading role in the introduction of new financial management techniques and in the distribution of financial innovation.

The importance of the financial services of Budapest banks gradually increased in our research period (1890–1913) *both in quantitative* (concentration of bank capital) *and qualitative (the diffusion of banking innovations)* aspects. By the end of the period *Budapest's financial hegemony in Hungary's banking system became obvious*. This is well illustrated by the cyclical periods of concentration and de-concentration processes. Although between 1910 and 1913 the number of provincial banking institutes increased very rapidly and the distribution of financial institutions became more homogenous, banks of Budapest – after a ten year transitional period – still increased their market share in five of the six banking lines reviewed in our paper. Thus, as a general rule, we can conclude that *the Hungarian banking system* – even if to a less extent than it is recently – *was Budapest-centred from the very beginnings*. The *concentration of financial institutions in Budapest on size (volume) basis* was particularly striking. There was a tenfold difference in equity base between the largest banks of Budapest and the largest provincial banks.

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[2] In Austria the largest 12 banks concentrated 64.7% of the total banking assets, in Germany the 5 biggest banks owed 50% of the total banking assets in year 1913 (*Tomka,* 1999).

[3] The percentage of Budapest share capital within own assets decreased from the highest 61% in 1900 to 54% by 1909.

Table 2

Share of Budapest banks in banking stocks and their annual turnover, 1894–1913, in percentage

Year	Bill credit		Mortgage loans		Commercial paper loan		Savings deposit		Charge account deposit	
	stock	turnover	stock	turnover	stock	turnover	stock	turnover	stock	turnover
	Share of Budapest within the Hungarian Empire*, %									
1894	26.9	36.1	57.0	50.8	65.4	88.2	22.8	38.3	–	–
1896	30.3	37.9	59.9	56.5	73.2	90.4	23.8	44.5	–	–
1898	31.3	39.1	60.9	42.6	74.7	85.2	24.4	37.5	–	–
1900	31.3	38.9	60.4	27.3	79.3	81.1	23.3	34.8	83.6	91.8
1902	30.9	41.1	60.6	45.4	75.4	87.7	21.8	30.8	84.3	90.0
1904	29.8	41.1	59.1	39.4	77.9	89.4	19.5	29.2	79.7	90.1
1906	31.2	40.9	55.5	28.5	78.4	88.1	19.7	29.9	77.9	91.1
1907	27.6	40.3	54.7	26.8	71.9	89.7	19.9	31.7	79.4	89.3
1908	30.2	38.9	53.9	27.9	74.4	85.4	20.3	31.1	79.5	89.8
1909	32.8	40.8	53.5	33.5	76.9	83.6	19.8	30.2	79.3	89.1
1913	32.2		61.1				21.4			

*Including Croatia.
Source: The author's own edition on the basis of Hungarian Statistical Bulletin vol. 35 (*Vargha*, 1913).

However, the spatial concentration of the financial institution system, unlike today, was very low in Hungary. In year 1910 4,425 financial institutions were operating in almost 3,500 settlements. Banks and/or savings banks headquartered in 868 settlements. The level of decentralisation of banking network based on local financial institutions corresponded – as Ron Martin (1994) called – to the *local-regional bank-oriented stage of the* contemporary *modern financial systems*. At the turn of the 19th/20th centuries *with the expansion of the locally based provincial credit institution network there was a kind of temporary balance between the centralised economy dominated by Budapest and the major provincial centres trying to stabilise their own positions. At that time the increasing financial importance of provincial cities was not yet hindered by the large-scale expansion of Budapest banks (Table 3).* This does not mean that the most important regional financial centres would have meant any major threat for Budapest's economic hegemony but the accelerated and spatially more balanced economic development by the end of the 19th century significantly reduced the disparity gap between dynamically developing provincial cities and Budapest (*Gál,* 1998a, 1999).

Table 3

*Breakdown of the selected banking lines in percentage among the different settlement levels, 1909**

	Equity	Savings deposit	Return (ROE)	Bill portfolio	Mortgage loans	Securities portfolio	Assets
Budapest	54.2	33.4	46.5	35.0	55.5	58.2	59.2
All provincial cities	28.9	44.9	29.7	37.3	32.1	34.2	29.1
– of which Cities with municipal rights	15.1	21.5	14.3	17.8	13.1	18.3	13.6
– of which Other towns	13.8	23.4	15.4	19.5	19.0	15.9	15.6
All cities	83.1	78.2	76.2	72.3	87.6	92.4	88,3
– of which Budapest	65.2	42.6	61.0	48.4	63.3	63.0	67.0
Villages	16.9	21.8	23.8	27.7	12.4	7.6	11.7
Hungarian Kingdom	100,0	100,0	100,0	100,0	100,0	100,0	100,0

* For banks & savings banks only.
Source: Author's calculation based on Vargha (1913).

3 Regional expansion of banking innovations

3.1 The golden age of local unit banking

The golden age of the Hungarian banking system lasted from the 1890s until the 1910s. Banks became one of the most important symbols of the prosperity and economic security of the peaceful „Belle Époques", partly as the money accumulated in banks and the deposit taking into the banks proved to be a long-term inflation safe investment for the public yielding profits above the inflation rate. In these times the *spatial development of the banking system was determined by two tendencies.* One is *the spatial expansion of the banking network* (*Gál,* 1999). In parallel with the strengthening role Budapest's financial market the spatial expansion of the provincial banking network can be seen. The rapid growth of the local banks, savings banks and credit co-operatives, which were established on the base of the local-regional capital source, resulted in the development and more even spatial distribution of the local money-markets. The local banks, partly through regional public fund management, became rather the symbol of the local entrepreneurial and public interests, than the branches of strange (e.g. Budapest based) banks. The local bankers became their cities' honoured citizens through their local development and patronising activities they became highly respected members of their city's local community. The development of the independent regional banking network determined to a great extent by the fact that the negative backwash effects could not be effective in territorial development during this period. That is why the development of the smaller banking locations and their functioning were secured without their capital resources were being backwashed by the capital city (*Gál,* 1999, 2001).

The rapid development of the local capital resource based provincial savings banks, banks, credit unions created a balanced, spatially more homogenous credit institution network and a relatively more homogenous spatial distribution of banking services. In 1909 in Hungary 3458 settlements had some kind of credit institution but only 868 settlements had a bank and/or a savings bank.

3.2 Gradual transition from local to nation-wide branch banking

3.2.1 Building respondent bank networks

Another developmental tendencies were the large scale concentration of the banking capital into Budapest and the penetration of Budapest's big banks into the provincial money-markets, which resulted increased the independent operation of the selected provincial banks facing to takeovers and incorporated many local banks

into their centralised nation-wide branch network. The spatial concentration of banking capital resources (although its degree was below of other economically advanced countries) accompanied by the market *entries of Budapest headquartered large banks into the provincial banking market*. *The centralisation of the credit system, after a transitional slowdown period, accelerated again as a result of respondent bank network building (related bank network of correspondent banks) and branch office building strategy of the major banks.*

Affiliation with local bank's accompanied by the incorporation of local banks into their expanding respondent bank networks, became part of the network building strategies of the largest banks headquartered in Budapest, which contributed to the increase of capital concentration and centralisation. Regional financial markets developed independently for a long time from Budapest's financial market. The increased financial strength of the banks of Budapest from the 1890s made possible the development of group of their respondent banks and the establishment of their branch networks forming the largest banking groups.[4]

Unlike relations with branches the related institutes (respondent banks) primarily served not for the absorption and channelling of capital resources towards the centre of capital resources. Related credit institutes were rather the main receivers for billing and charge account credits. Because of sharper competition in the market of Budapest and with more limited chances for market expansion apart from some cases large banks were concentrating on formulating provincial respondent bank network. Between 1900 and 1912 the largest 5 banks of Budapest increased the number of financial institutions belonging to their interest groups from 19 to 49 (*Table 4*). This figure was 134 with the financial institutions subordinated to their sub-organisations. Between 1900 and 1912 the total value of bank assets belonging to the main banking group increased from 2.4 billion crowns to 7.7 billion crowns. *Thus, the formulation of respondent bank network* significantly increased the organisational-institutional concentration of bank service market of Budapest. (*Zsoldos,* 1914).

3.2.2 The rise of branch networks

Another important tool of the institutional centralisation was the bank *branch network-development.* While in 1894 there were just 85 bank and savings bank branches in the country, in 1909 this number increased to 307 from which the number of branches owned by the Budapest banks raised to 68 and the number of affiliations to 63. So the concentration within the bank network has already started

[4] Respondent banks belonged to the 5 largest banks increased from 19 to 49 between 1900–1912, which number increased to 134 taking also those institutes into account which were sub-institutes depending on their respondent banks.

in the beginning of the 20th century, but at this time the big banks had relatively small number of branches and inside the banking system the smaller and *independent local unit banks* were dominated[5] (*Vargha*, 1913).

Table 4

The number of branches and respondent banks (affiliates) of the 15 largest Budapest-seated joint-stock credit institutes, 1899–1909

Year	Branches			Respondent banks		
	Budapest	Provincial	Foreign	Budapest	Provincial	Foreign
1899	18	4	–	–	3	–
1900	18	4	–	–	4	–
1901	20	7	–	–	4	–
1902	20	7	–	–	4	–
1903	20	8	4	2	8	1
1904	26	17	9	2	15	7
1905	28	21	6	2	18	9
1906	28	23	3	2	27	13
1907	32	25	6	3	40	12
1908	35	25	6	3	44	11
1909	36	26	6	4	47	12

Source: Hungarian Statistical Yearbook Volume 35.

Apart from affiliations, *the building of branch office network* was the other means of increasing the size of banking network. The absorption of capital was the primary task of bank branch office foundations. For head offices the branches served as capital accumulators collecting savings. They collected 'unproductive' capital in deposits and direct them through centres towards the fertilising channels of economy' (*Zsoldos,* 1914). Budapest banks were the major beneficiaries of opening branch offices. With stretching their arms length and building wider groups of client circles large banks extended their financial relationships by opening bank branches in certain parts of Hungary. The building of branch network due to higher operational costs was an expensive and risky business at the same time.

The branch network of large banks remained small in the period of our research (*Gál,* 1996) (*Table 5*). In 1896 the 4 largest Budapest's banks had only 7 offices in Budapest and 4 in provincial cities (*Figure 1*). The building of bank offices accel-

[5] The intensive concentration of the bank network largely progressed during the *"national or capital market-oriented"* stage in the interwar period, in which the banking system became more centralised into the capital city of Budapest and the national market incorporated the local, regional banks setting up a centralised national branch network.

erated at the turn of the 19th and 20th centuries and after the quick saturation of Budapest network the expansion started in provincial cities. The PMKB was the first to build its own banking network but opened its first offices in Budapest (7). By 1913 the expansion accelerated and increased the number of Budapest offices to 15 and to 9.[6] While in year 1894 Hungary had 85 bank and savings bank branches, their number increased to 307 (416 with Croatia and with the number credit unions) by year 1909. From which 134 belonged to the branch network of Budapest's banks. The Hungarian Discount and Exchange Bank apart from its 9 Budapest offices opened new ones in Kassa [Košice], Pozsony [Bratislava], Fiume [Rijeka] and Kolozsvár [Cluj-Napoca]. The Hungarian General Credit Bank opened its offices only at a later time, after 1905 but 9 offices were opened at the same time in different provincial cities. The Hungarian General Credit Bank had new offices in Pécs, Brassó [Braşov], Debrecen, Fiume [Rijeka], Győr, Kassa [Košice], Kecskemét, Nagyvárad [Oradea], Pozsony [Bratislava], Szabadka [Subotica] and Temesvár [Timişoara] in 1910. The bank building strategies of provincial banks were influenced by several factors. The stronger locally based provincial banks were hindering the penetration of Budapest' banks into their local markets, so several Budapest banks were trying to enter less saturated smaller-scale markets. In the case of PMKB respondent banks and branch offices were allocated into different cities following a complementary market building and market expansive strategy. Its bank offices – unlike its related respondent banks – were operating rather in cities of medium-size bank system avoiding this way the harmful outcomes of a strong market competition for their profitability. The Hungarian Credit Bank followed a more ambitious strategy as it concentrated on counties and cities with the largest credit stock.

Table 5

Banks with the largest respondent branch network in year 1913

	Number of offices	
	In Budapest	In provincial cities
Pest Hungarian Commercial Bank (PMKB)	15	9
Hungarian General Credit Bank (MÁH)	2	11
Hungarian Discount and Exchange Bank (MLPB),	9	4
Hungarian Commercial Bank Joint-stock Company (MBK)	6	11

Source: Zsoldos, 1914.

[6] Brassó [Braşov], Eszék [Osijek], Nagykanizsa, Nagyszeben [Sibiu], Sopron, Újvidék [Novi Sad], Újpest, Erzsébetfalva.

Gál, Zoltán : The Banking Functions of the Hungarian Urban Network in the Early 20th Century.
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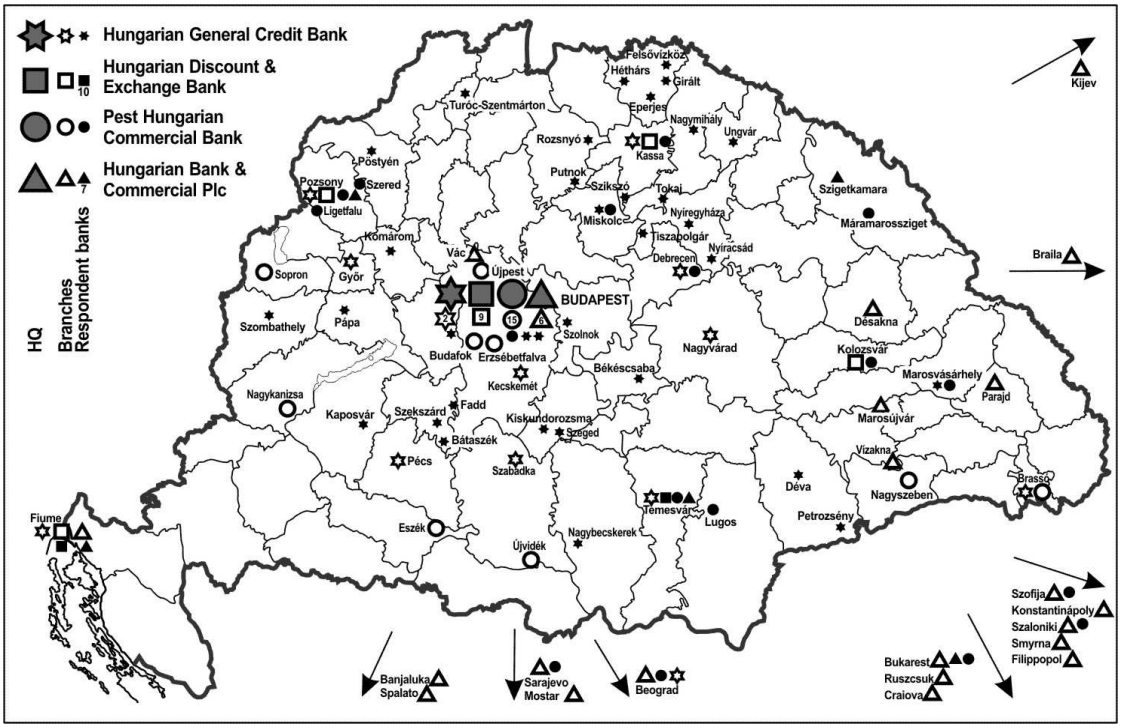
Figure 1

Branch and related respondent bank networks of the four largest Hungarian banks headquartered in Budapest, in 1914

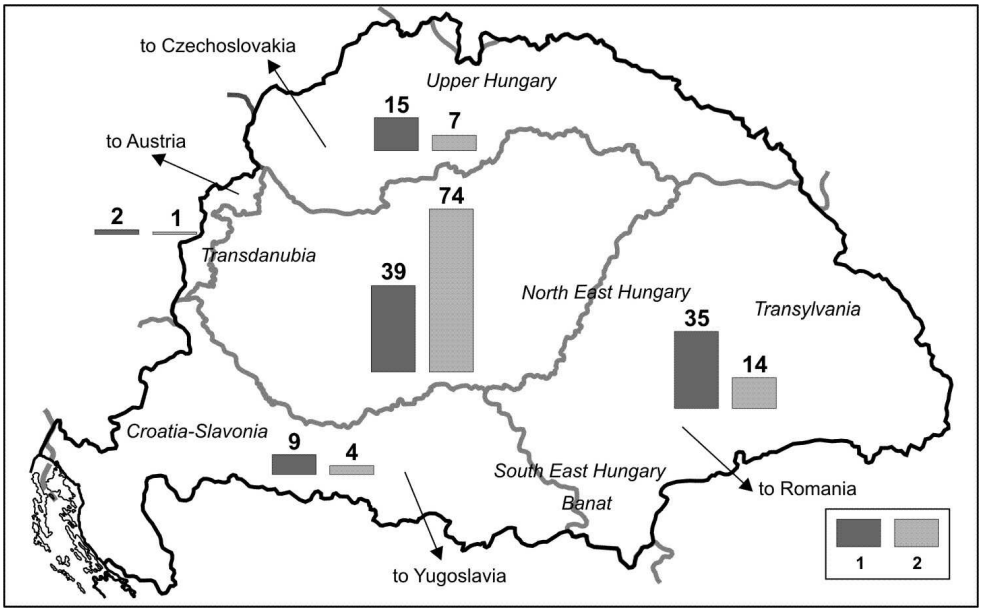


The Bank opened its offices on sites where it was concerned in industrial and financial interests (Bratislava, Subotica, Timisoara etc.). The Hungarian Banking and Commercial Plc was building its network in the peripheral areas of Austria–Hungary and abroad, especially on the sites of the Balkans where it had many foreign interests (Sarajevo, Saloniki, Banja Luka, Mostar, Bucharest, Istanbul).

Thus, the concentration of the banking network started at the beginning of the 20th century but at this time large banks had relatively few offices. *The banking system was dominated by small-scale, independent and locally founded unit banks*. The concentration of the banking network accelerated during the interwar period. In the period of *national market-oriented bank system* the gradual expansion of Budapest banks towards provincial sites further increased the dominance of Budapest. After the Trianon Peace Treaty (1920) Hungary's territory decreased to one-third of the original, several small provincial banks were closed or left outside the new borders thus only one-third of provincial banks could preserve their organisational independence within the smaller and dismembered Hungary (*Figure 2*).

Figure 2

Breakdown of credit institutes and banking equities among Hungary and the sucessor states of the Hungarian Kingdom after the WWI (Treaty of Trianon), 1920



Key: 1 – Breakdown of the number of credit institutions (in percentage); 2 – Distribution of banking equities (in percentage).
Soure: Buday, 1922.

3.3 Regional differences in the Hungarian banking system

The Hungarian banking system considerably expanded by the Eve of the World War I, and became one of the most advanced sectors of the Hungarian economy. The development level of the banking system is measurable by means of several macro indicators (comparative financial ratio, employment and penetration index), and by indices measuring the territorial characteristics of the banking network either on national or regional level (network density indicators compared to territory and population). Spatial breakdown of capital flows are one of the most important indicators of the regional and urban transformation. We examined the regional characteristics of the regional and local money-markets on the basis of the territorial breakdown of the banking stock aggregates (*Gál*, 1999).

3.3.1 Measuring banking network density

By the end of the 1910s Hungary belonged to the group of European countries with "high" *density of banks and savings banks*. In 1910 in Hungary with 20 million inhabitants the credit institute's supply index accounted for *3709 clients per institute. While in the early 20th century Hungary* with 0.9 bank density index (credit institutes/10,000 inhabitants) belonged to the group of countries with high density (*Gál*, 2000; *Tomka*, 1999b).

In the Hungarian banking system – comparing to Hungary's economic development level – had too many credit institutes. The high density of the banking network and its dominant role in the economy did not guarantee smooth, problem free operation. The oversized number of institutes decreased their efficiency in the field of the economy of scale. The considerable lack of supply of small and medium-size agricultural credits and the absence of Raiffeisen type credit unions further worsened the credit conditions of small and medium-sized landowners. There oversized number of financial institutes is frequently mentioned in the contemporary literature. The number of provincial banks and savings banks doubled between 1900 and 1915. As Gyula Vargha, the contemporary financial expert wrote 'It hardly can be denied that financial institutes were founded in too a great number: they were established in such places as well that already had had an old and consolidated credit base with well-funded capital resources' (*Vargha*, 1913). One can ask why Hungary had *relatively much more financial institutions than Western European countries on territorial basis.*[7] Because of the bank foundation fever generated by the scarcity of capital resources, the low level of institutional and spatial specialisation,

[7] Hungary by the number of financial institutions was the 8th even in 1885, exceeding such competitors as France and Austria; by the share of population Hungary was beaten only by the Benelux states, Scandinavian states and Germany. In: Vargha Gy.: see above, p. 562.

the strong competition for deposits there were places where more than one credit institutions were established without any economic reasons (e.g. in North-eastern Hungary). Thus, it is not by chance that these organisations with low equity base were the first to go bankrupt. At the same time the financial institutes of rising regional centres – contributing to the birth of commercial and industrial plants – were financing not only the dynamically developing local economy but several times they provided banking services in regions scarcely provided by banking institutes. The towns of regions with poor capital resources concentrated much more credit institutes than the national urban average number (*Vargha*, 1913).

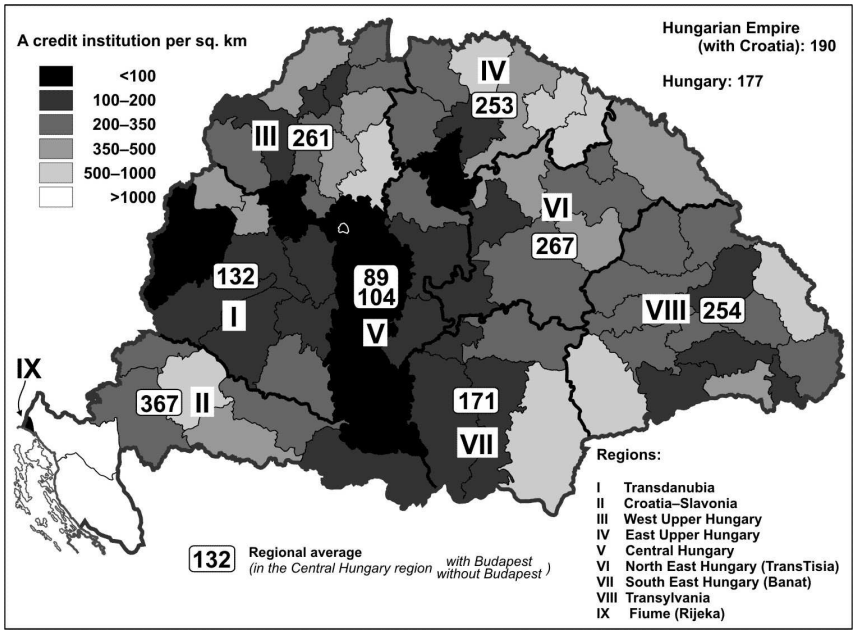
Studying the spatial structure of financial institutes we must analyse Hungary's *credit institution network* and the national-level distribution of banking sites. In 1910 Hungary had 4425 (5324 total with Croatia) credit institutions. Of them 1515 were operating as banks, savings banks or mortgage banks and 2910 (3623 total with Croatia) as credit unions. Of them 216 financial institutes and 52 offices – 5.7% of the total (4.6% with Croatia and affiliates) were located in Budapest. In 1909 most savings and credit institutes were operating in Croatia, Transylvania, Transdanubia and Central Hungary, the least in Upper North Hungary and North-Eastern Hungary. In the area of banks and savings banks the quick growth of the financial institutions of eastern and south-eastern regions is striking: the number of banks and savings banks operating in Bánát, Central Hungary (Bácska), Transylvania was higher than in Upper North Hungary and Transdanubia.

Concerning the *number of credit institutions per territorial unit* size measured in square kilometres (instituts/1000 km^2) we can see large regional differences within the distribution of credit institutes. Contemporary statistics used the *index of territorial unit per single institutes showing the size of the potential supply area of credit institutes*. The larger area supplied by a single institutes the lower the density of the banking network and vice versa. The spatial growth of credit organisation network is indicated by the fact that in year 1894 in Hungary *one financial institute was serving for an area* of 177 km^2. In year 1909 one institute was serving for a much smaller area of 64 km^2 indicating the growth of the *number of credit institutions*. The *credit institution network* is the most densely built up in Central Hungary, Bánát, and in Transdanubia but the density of the network was the lowest in West and East Upper Hungary and Transylvania compared even to territorial dimensions. It is also clearly seen that concerning the density of the banking network, Transdanubia's good position in 1894 was surpassed in the early 1910 by Bánát region, fast developing its financial network and also by Croatia, rapidly growing its credit union network. As Croatia was the most underdeveloped region, it produced the most rapid pace of development of its financial network. However, the density of banks was relatively small there but the density of credit unions was the highest there (*Figure 3a–b*).

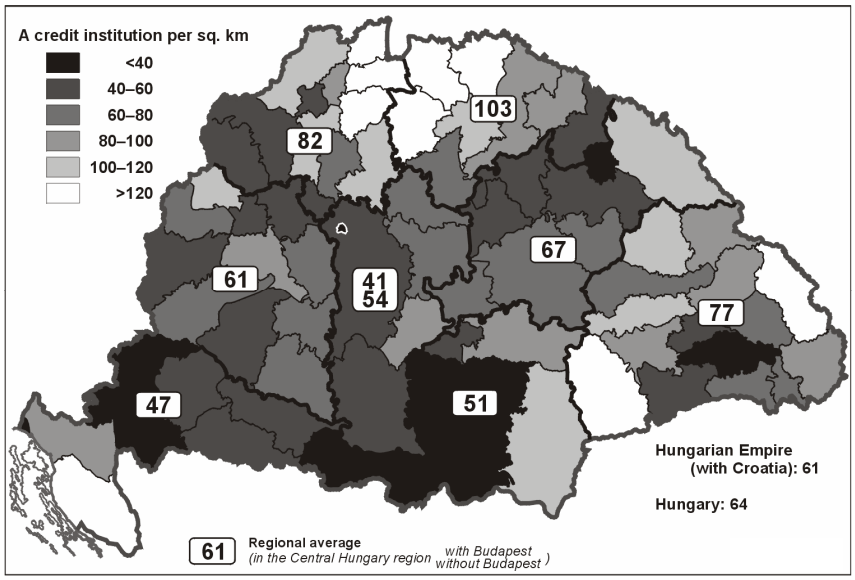
Figure 3

Territorial density of credit institutions in Hungary: size of territorial unit per an institute, 1894, 1909

a) 1894



b) 1909



Source: Edited by the author.

Naturally, the indicator of *territorial size* per *a bank or savings bank* is higher which means its banks and saving banks network had smaller density therefore banks had to serve larger areas. In year 1910 the *territorial unit size* per *a bank or savings bank* in Transdanubia was far below the Bánát and the Central Hungarian region and the density of banking network was even higher in West Upper Hungary and Croatia. The density of the banking network was the lowest in Transylvania and Eastern Upper North Hungary (*Figure 4a*). In year 1894 although spatial disparities in general were greater Central Hungary with Bánát were the two leading regions with the highest density of banks and savings banks. They were followed by Transdanubia then with a certain gap by North East Hungary, East Upper Hungary, Transylvania and Croatia (*Figure 4b*) (*Gál*, 1999).

In the late 19th century the density of banking network measured by bank supply index measuring the number of population supplied by a credit institution (bank supply index: population per credit institutes) was the highest in Central Hungary, in some counties of Transdanubia, Bánát (Temes, Torontál counties) and in some Saxon counties of Transylvania. In these regions lower number of residents was serviced by a single credit institute indicating higher efficiency of bank supply in 1894. The largest number of population was served by one credit institution (with lower efficiency) in Croatia, Upper Hungary and in the counties of Transylvania, indicating the lower density of the available banking network (*Figure 5a*). By year 1909 the region of Bánát and the earlier underdeveloped Somogy County with some Saxon counties of Transylvania and some Croatian counties (Szerém, Pozsega, and Verőce) got onto the top of density rank. The expansion of network was very fast in Pozsony and Nyitra counties and in North East-Hungarian, East Upper North Hungary, Transylvanian and Croatian regions having very few credit institutions at an earlier time. Meanwhile the earlier 2nd position of the Transdanubian region on the density list fell back to the 5th (*Figure 5b*). By year 1910 on the basis of the population number served by *one bank and savings bank* (supply ratio) Transdanubia fell back to the 8th, the last position. The Bánát (South East Hungary [Banat], Central Hungary and Transylvania (with relatively low population density) were on the top of density list (*Figure 6a–b*).

Due to the relatively balanced spatial distribution of provincial credit institutions in the early 20th century *the majority, nearly 65% of credit institutes were located in non-urban settlements (villages)*. This was significantly promoting modernisation in small and rural settlements and also indicated that economic development was not harmonising with the traditional system of public administration.[8]

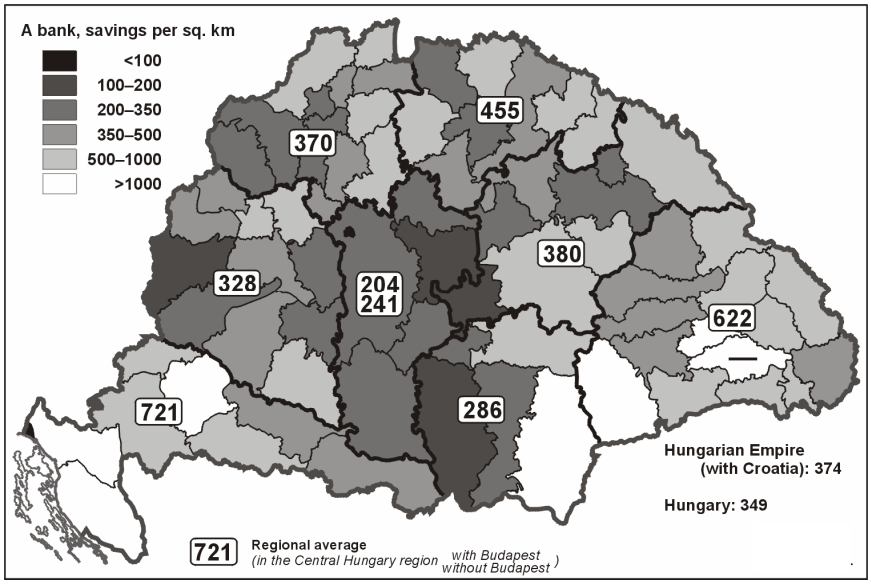
In conclusion, we can state that the innovation of financial institutions was penetrating into more and more areas (settlements) of economic space and this ensured a smoother distribution of financial organisations.

[8] The less capital funded *credit unions* were generally operating in non-urban settlements.

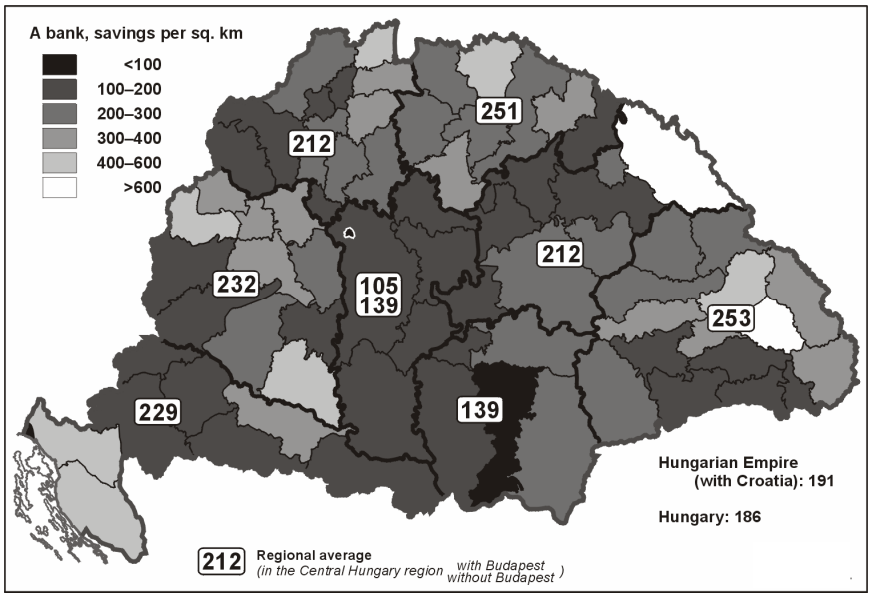
Figure 4

Territorial density of banks/saving banks in Hungary: size of territorial unit per a bank/savings bank, 1894, 1909

a) 1894



b) 1909

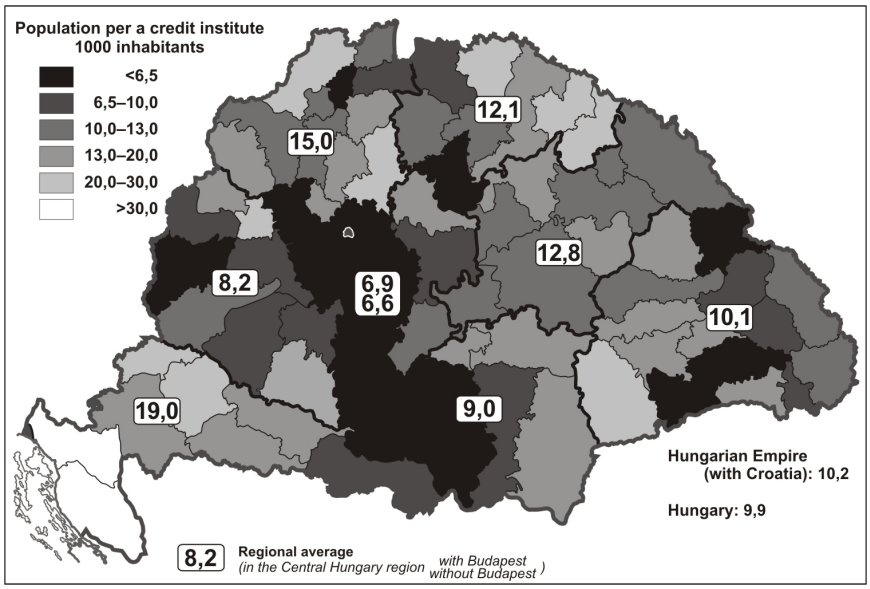


Source: Edited by the author.

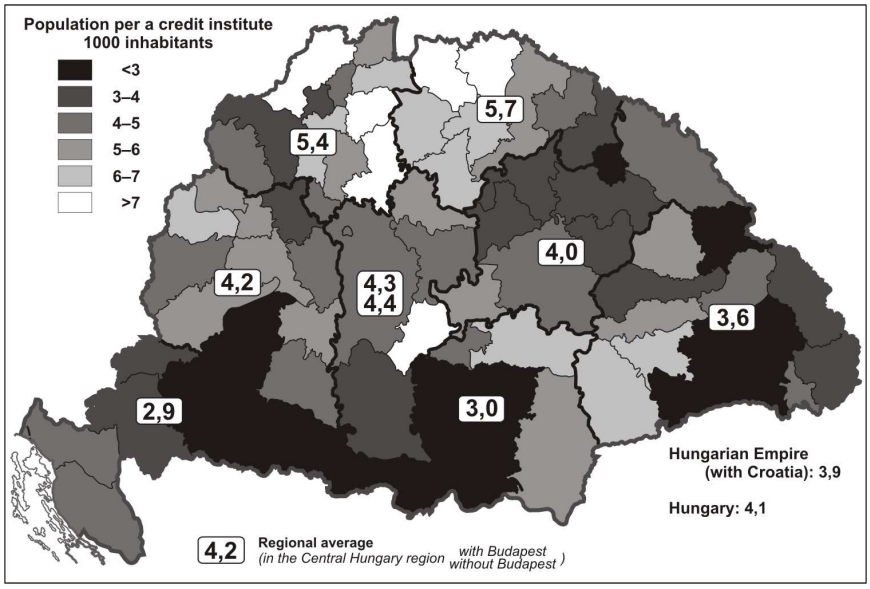
Figure 5

The regional breakdown of bank supply index in Hungary: population per a credit institute, 1894, 1909

a) 1894



b) 1909

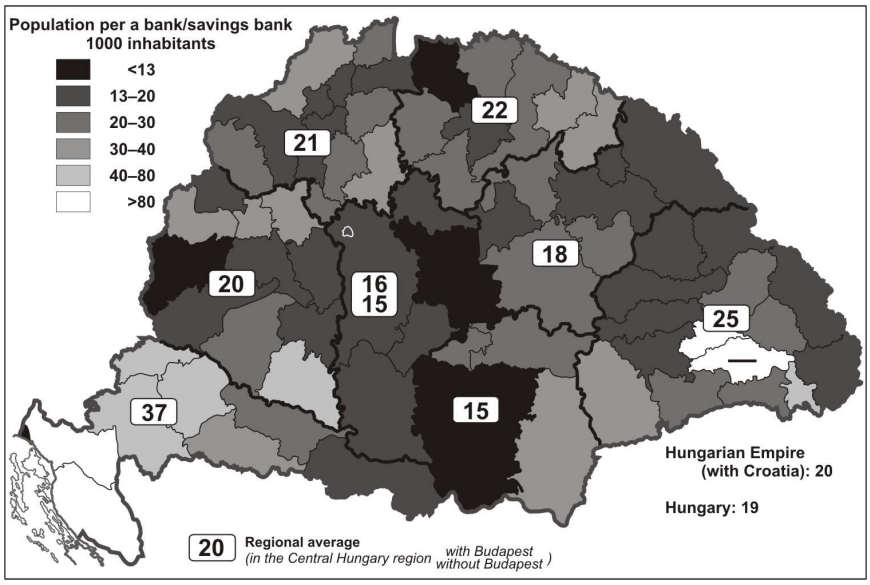


Source: Edited by the author.

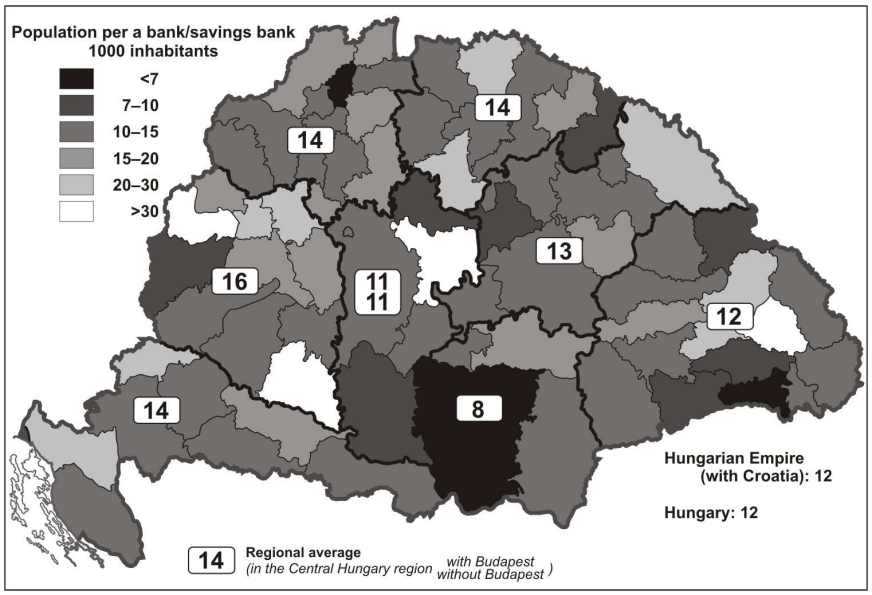
Figure 6

The regional breakdown of bank supply index in Hungary: population per a bank and savings bank, 1894, 1909

a) 1894



b) 1909



Source: Edited by the author.

3.3.2 The geographical distribution of banking stocks and flows

The financial geographical analysis of the spatial dimensions of capital flows and distribution of bank network is an important indicator of the historic transformation of the urban network as well. During the analysis of spatial distribution the volume of assets and deposits, the most important indicators of assets & liabilities side of the bank balance sheet, are serving as an evaluation basis for the importance of financial institutions. In 1909 97.5% of Hungarian credit institutions were engaged in deposit business, so this field is a suitable indicator for a deeper analysis. Accepting bank deposits was not only a widespread service but also was a local savings indicator and served as a resource for working capital supply of financial institutions.

Although *the indices of the regional and county level distribution of banking deposits* may inform about the concentration and turnover of deposit account of a certain territorial level but may hide differences within a region or county and this makes difficult to evaluate the degree and the central-place service of some settlements. *The largest amount of deposits collected by credit institutions* was accumulated in Central-Hungary, Transdanubia, West Upper Hungary and in South East Hungary (Banat). The volume of bank deposits was medium-sized in Transylvania and North Eastern Hungary and was low in Croatia and East Upper North Hungary. On county level, counties with dense credit and financial institutions (Pest-Pilis-Solt, Bács-Bodrog, Temes, Pozsony, Torontál, Vas, Nyitra) or with a major financial centre (Zágráb, Arad, Bihar, Kolozs, Csongrád, Hajdú) had the largest volume of deposits. While in Transdanubia and Central Hungary volume of deposits were distributed evenly large differences occurred among counties in the peripheries as Croatia and Transylvania. (The counties of the Croatian seaside and the 'Székely-Sekler' counties in Transylvania accumulated very low amount of deposits) (*Figure 7, Table 6*).

An analysis *on the deposits per capita* average indices reveals the general position of a settlement in the financial system.[9] Banking statistics clearly show that the sum of deposits per capita indices of urban settlements are far exceeding county level deposit indices. This can only partly be explained by the greater economic activity of urban population, generating in this way larger volume of bank savings. The other reason of this wide difference between urban and county level results comes from the fact that urban banking centres had larger capacities and rendered a wider choice of banking services meeting special demands and offering higher interest rates.

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[9] In 1910 the average *deposit sum per each deposit index* was the highest in East Hungary and Banat after Budapest. This is explained by the concentrated capital accumulation and welfare in the dynamic regional centres of the eastern regions rapidly catching-up. The average deposit sum per deposit indicator was the lowest in East Upper Hungary and Transylvania.

Figure 7

County level breakdown of bank deposits in 1913 (including cities with municipal rights)

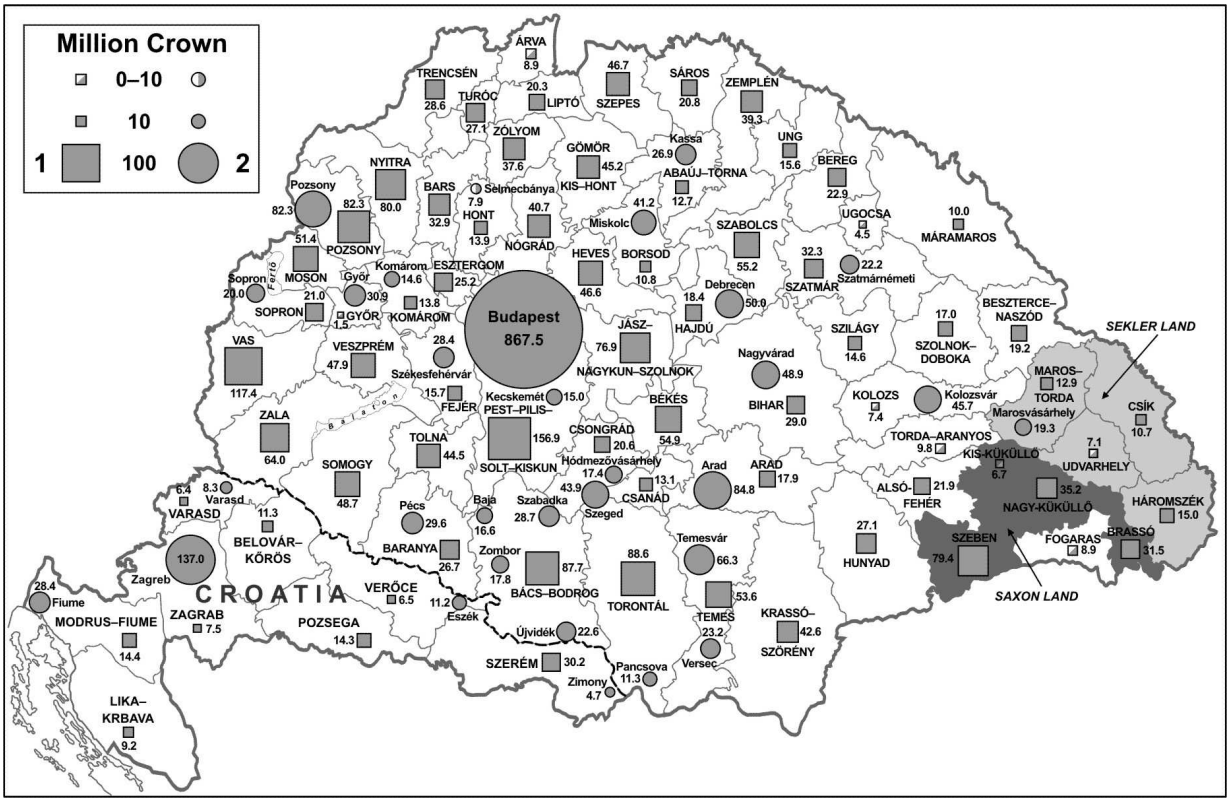


Table 6

The ranking of counties by the volume of banking deposit and asset stocks, 1909

County	County ranking by the volume of banking deposits*	County	County ranking by the volume of banking assets
Budapest	1,186,438,000	Budapest	5,548,796,000
Bács-Bodrog	149,006,000	Zágráb	326,289,000
Pest-Pilis Solt Kiskun	140,506,000	Bács-Bodrog	271,004,000
Zágráb	134,549,000	Szeben	244,176,000
Temes	120,019,000	Pest-Pilis Solt Kiskun	226,895,000
Pozsony	112,225,000	Temes	193,109,000
Vas	91,865,000	Arad	154,304,000
Arad	91,737,000	Hajdú	144,033,000
Torontál	86,197,000	Torontál	143,345,000
Bihar	75,144,000	Pozsony	135,639,000
Csongrád	72,445,000	Bihar	128,466,000
Nyitra	71,368,000	Vas	117,766,000
Jász-Nagykun-Szolnok	66,368,000	Csongrád	115,577,000
Szeben	64,401,000	Jász-Nagykun-Szolnok	110,068,000
Hajdú	59,929,000	Szabolcs	101,809,000
Zala	54,583,000	Békés	95,935,000
Szatmár	49,723,000	Nyitra	90,717,000
Szabolcs	46,721,000	Zala	89,765,000
Sopron	46,041,000	Szatmár	77,578,000
Borsod	45,377,000	Somogy	74,247,000
Békés	45,142,000	Borsod	69,746,000
Kolozs	43,777,000	Krassó-Szörény	69,119,000
Baranya	43,706,000	Kolozs	68,105,000
Szepes	43,392,000	Baranya	66,866,000
Veszprém	41,103,000	Fejér	65,115,000
Krassó-Szörény	39,424,000	Abaúj-Torna	63,597,000
Fejér	39,211,000	Fiume	61,516,000
Tolna	38,677,000	Tolna	60,263,000
Somogy	38,403,000	Sopron	57,436,000
Gömör-Kishont	36,877,000	Veszprém	54,605,000
Abaúj-Torna	35,705,000	Brassó	54,089,000
Zemplén	34,297,000	Nagy-Küküllő	53,557,000
Heves	34,208,000	Heves	53,542,000
Nógrád	32,222,000	Szepes	51,471,000
Szerém	31,612,000	Zemplén	50,596,000
Brassó	31,193,000	Gömör-Kishont	48,492,000
Fiume	30,594,000	Szerém	46,253,000

Count. Table 6

County	County ranking by the volume of banking deposits*	County	County ranking by the volume of banking assets
Zólyom	30,499,000	Győr	46,240,000
Nagy-Küküllő	29,876,000	Nógrád	44,379,000
Győr	28,883,000	Maros-Torda	42,774,000
Maros-Torda	27,835,000	Hunyad	40,359,000
Hunyad	26,237,000	Zólyom	38,176,000
Bars	25,100,000	Bars	35,018,000
Trencsény	24,748,000	Bereg	34,430,000
Komárom	23,256,000	Trencsény	32,408,000
Túróc	22,784,000	Verőce	31,012,000
Esztergom	22,041,000	Modrus-Fiume	30,955,000
Bereg	19,490,000	Esztergom	28,219,000
Beszterce-Naszód	18,446,000	Túróc	27,906,000
Sáros	18,078,000	Pozsega	26,610,000
Alsó-Fehér	17,268,000	Beszterce-Naszód	25,884,000
Hont	17,171,000	Alsó-Fehér	25,691,000
Modrus-Fiume	16,016,000	Szilágy	25,261,000
Szolnok-Doboka	15,742,000	Szolnok-Doboka	25,125,000
Moson	15,347,000	Sáros	23,308,000
Liptó	15,180,000	Varasd	22,950,000
Háromszék	14,987,000	Hont	21,921,000
Szilágy	14,944,000	Liptó	21,811,000
Varasd	13,613,000	Belovár Körös	20,652,000
Pozsega	13,316,000	Háromszék	19,971,000
Ung	11,568,000	Moson	19,192,000
Verőce	10,708,000	Komárom	18,294,000
Belovár Kőrös	9,931,000	Máramaros	18,009,000
Árva	9,567,000	Csanád	17,074,000
Torda-Aranyos	9,526,000	Ung	17,047,000
Csanád	9,185,000	Torda-Aranyos	14,831,000
Máramaros	8,113,000	Kis-Küküllő	13,636,000
Csík	8,113,000	Csík	12,469,000
Fogaras	7,833,000	Árva	12,396,000
Kis-Küküllő	7,076,000	Fogaras	11,202,000
Lika-Krbava	6,795,000	Lika-Krbava	10,975,000
Udvarhely	6,724,000	Ugocsa	10,293,000
Ugocsa	4,713,000	Udvarhely	9,650,000

*Including savings, charge and checking account deposits of all credit istitutes
Source: The author's own edition on the basis of Hungarian Statistical Bulletin, Vol. 35

This was attracting not only local urban but remote rural clients as well to put their deposits into city banks. Their greater trust in city banks was also a driving force for choosing them (*Dövényi*, 1977).

The a*nalysis on the regional level distribution of deposit stocks* – including savings, charge and checking account deposits of all credit institutes – reveals two facts. One is that the average sum of deposits is a direct indicator of regional economic development and shows the efficiency of a bank's deposit collection policy. *On the other hand*, county level indices showing the major directions of deposit placements serve as indicators of a financial institution's gravity zone. The national average of per capita deposit sums in credit institutions increased from 100 crowns (1894) to 205 crowns by year 1909. The national average of per capita deposit sums in banks and savings banks increased from 44 crowns (1894) to 193 crowns (177 crowns if including Croatia) and the provincial average of deposit sums per capita was 107 crowns in 1909.

The comparison of *the spatial distribution of average per capita deposit indices* of *banks and savings banks* in 1894 clarifies that modernisation structures, in general, were moving eastward from the west. *The further we are going 'eastward' the lower are the per capita deposit sum indices.* The acceleration of the centrifugal pattern of the spread of banking innovation at the turn of the 19th and 20th centuries is clearly seen in Southern Hungary's example, catching up to the leading counties between 1894–1909 (*Figure 8a–b*).

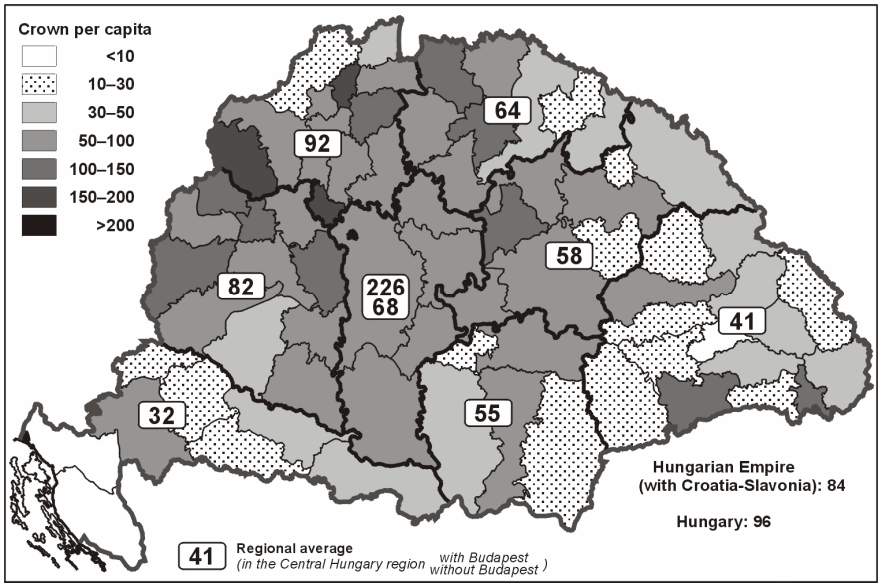
At the same time, with the lowest value of average per capita deposits Transylvania and Croatia kept their last positions even in 1909. County level statistical averages in 1909 – excluding Pest-Pilis-Solt-Kiskun County with Budapest, the county seat – were the highest in Szeben (304 crowns) and Túróc (393 crowns) counties.[10] This formal value is explained not only by the local Saxons' traditionally high saving affinity but also by the well known Nagyszeben General Savings Bank[in Sibiu] absorbing all the savings of Transylvania's ethnic German (Saxon) population. 'Nagyszeben Albina', South Transylvania's another important *ethnic bank* (Romanian owned) was further increasing the city's attractivity for savings. The fact that Kis-Küküllő County, inhabited by Saxons has a very low average per capita deposit index is explained by the absence of a local financial centre. The local Saxonian clients were visiting the financial institutions of their largest centres such as Segesvár [Sighişoara], Medgyes [Medias] and Nagyszeben [Sibiu]. Northern Hungary's leading position is based on the banks in Túrócszentmárton [Martin] and Rózsahegy [Ružomberok], the Hungarian Slovaks' 'national bank centres'

[10] The per capita deposit index of credit institution was 409 crowns in Túróc County and 364 crowns in Szeben County! The first ten counties in in terms of per capita deposit indices are as follows: Fiume, Szeben, Túróc, Pozsony, Brassó, Szepes, Esztergom, Hajdú, Zólyom, Zágráb, Csongrád, Arad, Temes, Győr, Vas.

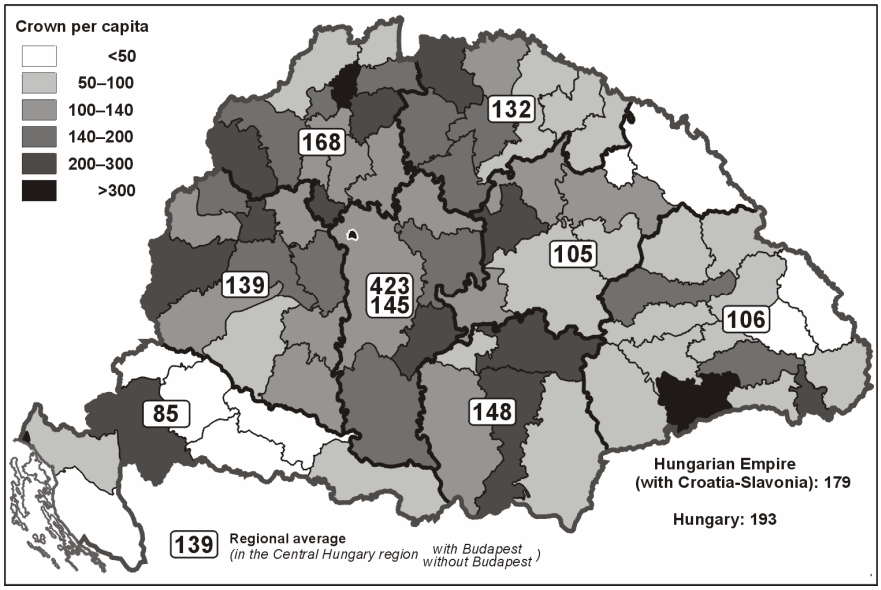
Figure 8

Regional distribution of per capita bank & savings bank deposit in Hungary, 1894, 1909

a) 1894



b) 1909



Source: Edited by the author.

(Tatra Bank, Rózsahegy Credit Bank). Túróc County's extremely high average is the result of 'Tatra' Bank's (founded in year 1884) active services and its rapidly growing branch system in the gravity zone of Upper Hungary's Slovakian population (*Tóth*, 1992). The slowly rising bourgeois ethnic society in the peripheral regions was rather more successful in banking activities than in industrial investments; industrial development was rather more resulting from the expanding activities of Austrian, Hungarian and foreign investors. The per capita deposit averages were also high in Pozsony County (277), in Brassó, inhabited by Saxons with traditionally high level banking culture (274) and Szepes County (235). Zólyom (221) and Gömör (191) counties had important industrial plants boosting up banking activities. Croatia's 'money surplus' was increasing the savings of Zagreb banks (219).

Central-Hungary and some regional financial centres attracting high amount of deposits also generated high average deposit indices in their respective counties (Arad 216, Temes 215, Csongrád 218, Hajdú 234 crowns). In the latest case Hajdú County's high position is resulting from Debrecen's high concentration and Hajdú County's low population density (*Figure 8b*).

The spatial distribution of per capita banks & saving banks deposits shows a hierarchical diffusion pattern. In general, the indices are higher in counties with 'strong' economic centres (Hajdú-Debrecen, Arad-Arad, Temes-Temesvár [Timişoara], Csongrád-Szeged, and Pozsony-Poszony [Bratislava]). The map also shows that the population ratio of county seats per 'their county' may strongly influence the general impression; the higher a county's population lives in a county-seat, the greater is the influence on the county's indices (Debrecen-Hajdú County, Brassó-Brassó County, Győr-Győr County, Kolozsvár [Cluj-Napoca] - Kolozs County). If a county's population is several times higher than the population of its county-seat the latter one cannot significantly influence its county's values (e.g. Nagyvárad [Oradea] -Bihar County). The low values in the neighbouring counties of the large regional financial centres, sometimes even with wealthy (e.g. the 'rich-soiled' Csanád County (53 crowns) situated between the two cities Arad and Szeged) are explained by the fact that local residents put their deposits into the banks of the above-mentioned cities generating high financial turnover. However, in most counties the low average deposit values were reflecting the county's poor economic and living conditions (Árva, Trencsén, Máramaros, Ung and the Croatian counties) (*Vargha*, 1913).

Considering *the spatial distribution of the relative per capita deposits of all credit institutions* in year 1909, we can conclude that their per capita deposit sums were exceeding the 140 crown provincial average in the western (West-Transdanubia, West Upper Hungary) and central [South East Hungary (Banat), Central-Hungary] regions. The national average was 205 crowns and 190 crowns if we include Croatia. South Transdanubia was differing from Hungary's central and north-

western Transdanubian counties in this respect too (Baranya 124, Somogy 105, and Zala 117). The average deposit index was high in the central part of Upper Hungary and also in the Great Plain, even in counties having no large county seats (Szabolcs 146, Jász-Nagykun-Szolnok 177, Békés 151). Going eastward from the Sáros-Krassó-Szörény axis the per capita deposit indices are below the national average (Sáros 103, Ung 71, Máramaros 24, Ugocsa 51, Krassó-Szörény 84) but the 'Saxon counties', being island, namely Brassó (308), Szeben (364) and Nagy-Küküllő (201) and even Beszterce-Naszód (144) produce higher than national average values. Seklerland, in this respect, shows unfavourable results (Udvarhely 54, Csík 56, and Háromszék 101). Croatia's 'massive backwardness' resulting from its belated modernisation process is reflected by these indices too (Belovár-Körös 30, Lika Krbava 33, Verőce 39) (*Figure 9a–b*).

Nevertheless, the territorial breakdown of banking assets gives us a more accurate picture about the real concentration of banking innovations. *The spatial breakdown of banking assets by credit institutions* both, on regional and county level shows some declination from the pattern of deposits in 1909. Surveying the regional distributions of asset stock concentration in the regions Central Hungary and Transdanubia maintain their top positions and were the leading regions, whereas the surprisingly good position of Transylvania was owing to the huge financial capital accumulation made by the traditional Saxon (German minorities) banks located in South Transylvania. Transylvania's 3rd position is definitely resulting from the capital concentration of Nagyszeben banks [banks of Sibiu]. The TransTisia (North East Hungary) and the Banat (Sout East Hungary) regions occupied middle positions and Upper Hungary situated in the end of this rank. Croatia's good – 6th – position was unanimously owing to the large capital concentration of the Zagreb based banks (*Gál*, 2000, 2002) (*Table 6*).

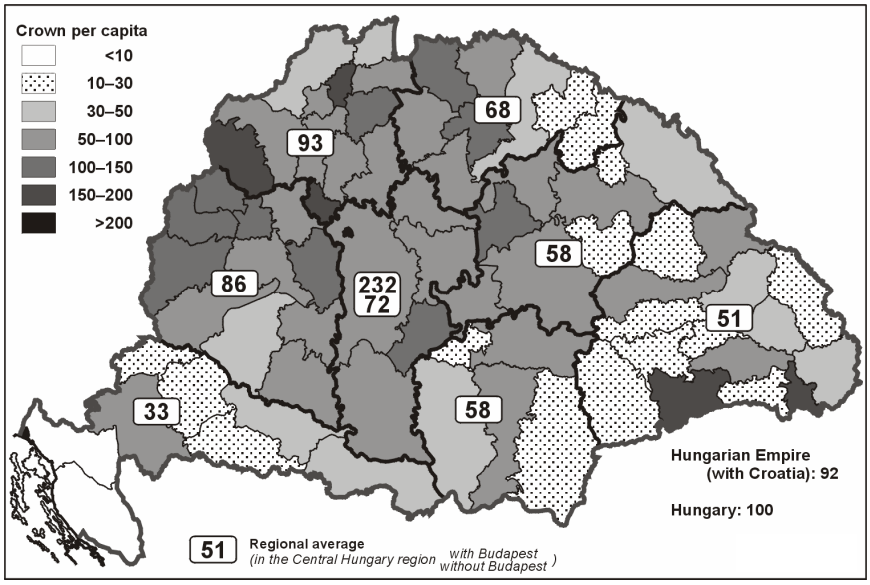
On county level the largest banking assets are concentrated in counties with a dense network of credit and financial institutions (Bács-Bodrog, Pest-Pilis-Solt-Kiskun, Torontál, Vas, Jász-Nagykun-Szolnok, Szabolcs, Nyitra, and Zala) and in counties with outstanding financial centres (Zágráb, Szeben, Temes, Arad, Hajdú, Pozsony, Bihar, Csongrád). The concentration of banking assets was the smallest in the Transylvanian Udvarhely County together with Ugocsa, Lika Krbava, Fogaras, Árva, Csík, Kis-Küküllő, Torda-Aranyos, Ung, Csanád, Máramaros, more or less the peripheral counties. The per capita breakdown of banking assets by counties provides a more precise overview on the real concentration of banking stocks.

The regional breakdown of per capita credit institution assets significantly changed between 1894 and 1910. In 1894 Transdanubia, West Upper Hungary and Central-Hungary were on the top of ranking with their high per capita assets. They were followed by Transylvania and South East Hungary (Banat). East Upper Hungary, North East Hungary and Croatia were the last on the ranking. Thus, the spatial dimensions of modernisation processes in the last quarter of the 19th century

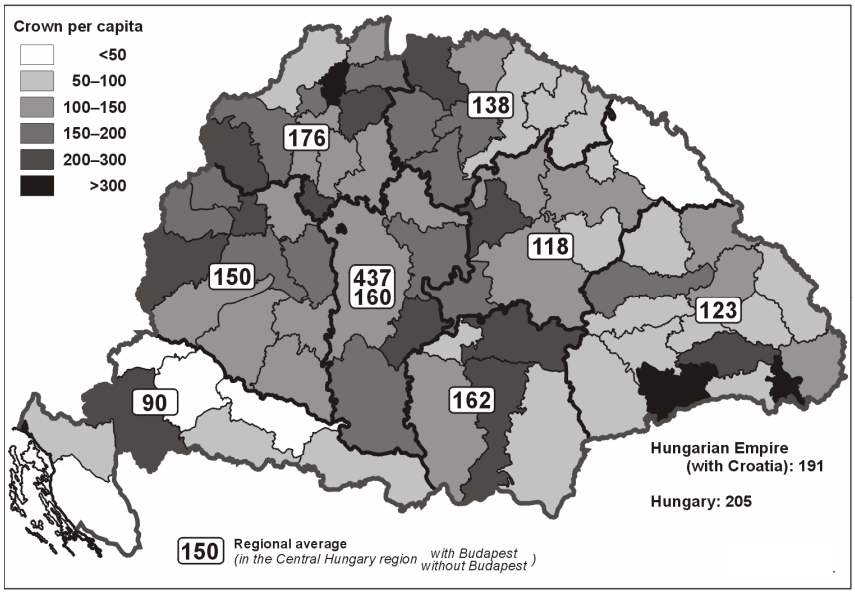
Figure 9

The regional distribution of per capita credit institution deposit in Hungary, 1894, 1909

a) 1894



b) 1909



Source: Edited by the author.

were determined by development disparities between the eastern and western regions having also a fundamental importance in the spread of financial innovations. Regional indices cover quite large county and urban level differences. The traditional financial centres (Nagyszeben [Sibiu], Brassó [Braşov], Beszterce [Bistriţa], Szepes cities, Sopron) with the financial centres of Transdanubia (Győr, Székesfehérvár, Esztergom) were on the top of ranking. The western regions' good results were completed by the high indices of Pozsony and Túróc County. Besides the eastern and southern regions, the traditional Saxon counties, Hajdú and Abaúj-Torna counties have good positions because of its strong financial centres of Debrecen and Kassa [Košice]. Later on the major financial centres and their county hinterlands such as Arad, Temes, Zagreb and Borsod were only at the early stage of their development process. In the late 19th century the positions of financial centres with high county level per capita assets were slowly and gradually weakening. In the 1890s the later emerging dynamic banking centres of the early 1900s were only in the initial phase of their development (*Figure 10a*).

In the consequence of the rapid eastward expansion of banking services the distribution of the per capita assets demonstrated a *significant territorial rearrangement* took place between the 1890 and 1910. The analysis of the *spatial distribution of per capita indices of assets by all credit institutions in 1909* clearly verifies that the ranking of regions was undergoing a complete change during a 15 year period. South Transdanubia and West Upper Hungary, once the leading western regions' position declined significantly, whereas the central and eastern regions (South East Hungary, Central Hungary, Transylvania) rapidly catching-up to the top. A detailed analysis of this phenomenon will be described in the regional chapters (*Figure 10b*). *If we include banks and savings banks only in the ranking*, we find the same two regions in the first two places. West Upper Hungary is the 4th and they are followed by North East Hungary and Transylvania. However, there are no changes on the last positions.[11] By the late 19th century the largest per capita assets were measured in the western and north western regions, the eastern and south eastern regions were lagging behind. Regional spread of financial services clearly mirrored the spatial economic development of Hungary was characterized by the west-east divide in the first phase of modernization. Once the leading Transdanubian region was one of the biggest losers since fell back to the 6th rank (of the eight) from the first place despite of its few counties improved their positions (Győr, Fejér) and one could strengthen its above average position (Vas County) even if the indices produced a higher than the national average development dynamics.[12]

[11] In Transylvania the rapid development of credit institutions was the result of large scale credit union foundations. For this reason the region density of bank and savings were lower.

[12] Counties in Transdanubia could not keep up with such substantial bank capital accumulation experienced in some eastern counties.

West Upper Hungary dropped back from its previous second place to the 4th despite its financial centre (Pozsony [Bratislava]) was preserving their national importance. The eastern regions gained leading positions representing the rapid West-East directions in the expansion of economic development: South East Hungary obtained the first rank from its previous 5th rank. It was followed by Central Hungary. The regional ranking of banks clearly shows that eastern regions got into leading positions: South East Hungary (Banat) rose to the 1st from the 5th position, Central-Hungary from the 3rd to the 2nd. The traditionally underdeveloped regions (Croatia, East Upper Hungary) were the last in their ranking (*Figure 11a–b*).

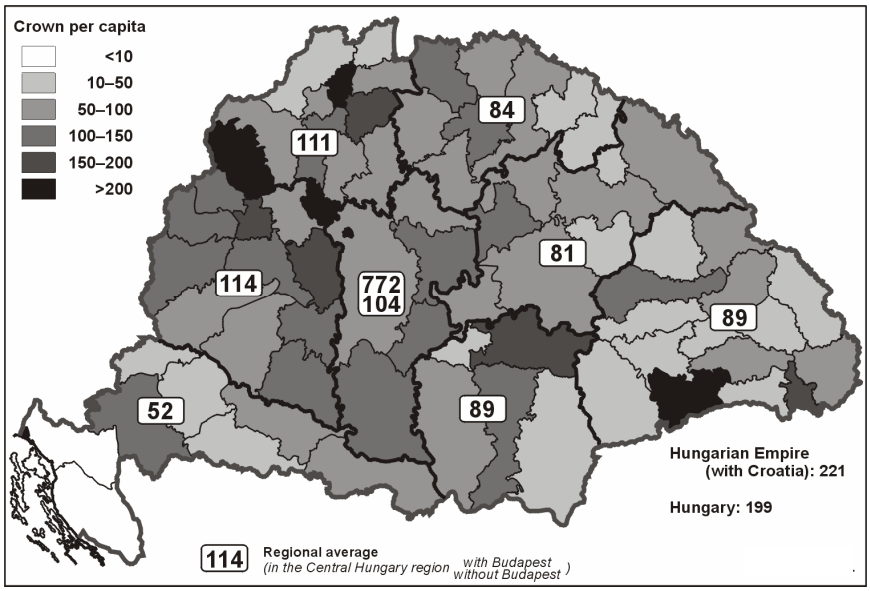
In year 1910 the leading *counties' in terms of per capita credit institution assets*, due to their special financial traditions, were the Transylvanian Saxon counties (Szeben 1380 crowns per capita, Brassó 534, Nagy-Küküllő 360). They were followed by Túróc (501 crowns per capita) Zagreb (594), Temes (386), and Arad (372), Csongrád (355), Pozsony (348), Győr (338) and Abaúj-Torna (314) counties. Some counties with more development poles and dense financial network such as Bács-Bodrog (334), Békés (321), Szabolcs (318), Abúj-Torna (314), Esztergom (310), Szepes (297) were also among the first ones. Naturally, the peripheral, economically and socially less-favoured regions as Croatia (Lika-Krbava, Belovár, Körös, Varasd, Pozsega, Szerém, Verőce), Transylvania (Udvarhely, Torda-Aranyos, Csík, Szolnok-Doboka, Alsó-Fehér, Kis-Küküllő, Fogaras, Hunyad), Upper North Hungary (Trencsény, Ung, Sáros, Bereg, Árva) and due to different reasons some counties of other regions (Komárom, Csanád, Szilágy) were in the most backward situation. The scarcity of banks, the absence of major banking centres and in case of Csanád County the central place function and gravity force of the neighbouring banking centres, hindering the concentration of local banking assets, are the most frequently mentioned reasons of backwardness (*Figure 10b*).

In conclusion we argues, that spatial differences of per capita banking assets clearly showed the economic rise of Hungary's central, eastern and south-eastern regions. The territorial differences in per capita assets unanimously indicated the economic rise of the eastern regions, which resulted in the loosing positions of the western territories, modernizing earlier, despite their development progress

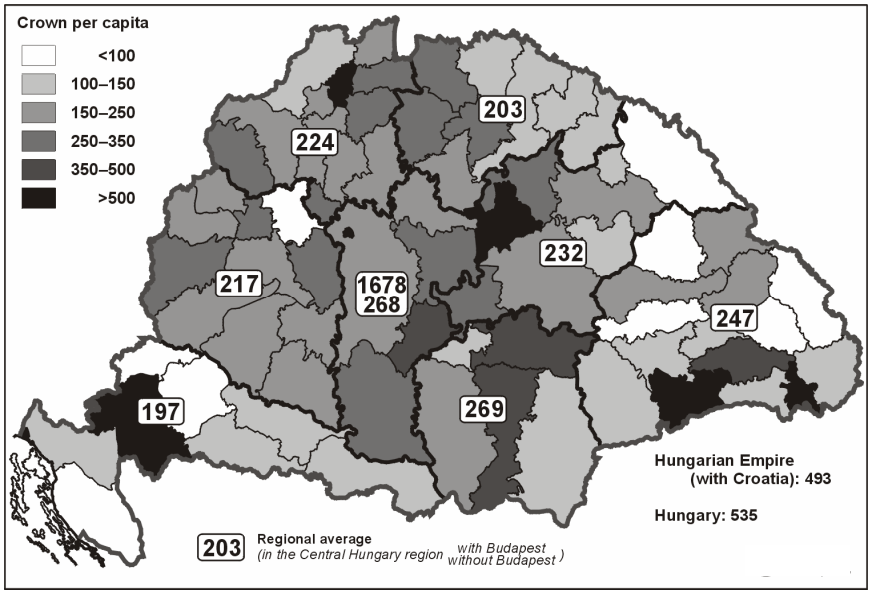
Figure 10

Regional breakdown of per capita credit institution assets in Hungary, 1894, 1909

a) 1894



b) 1909

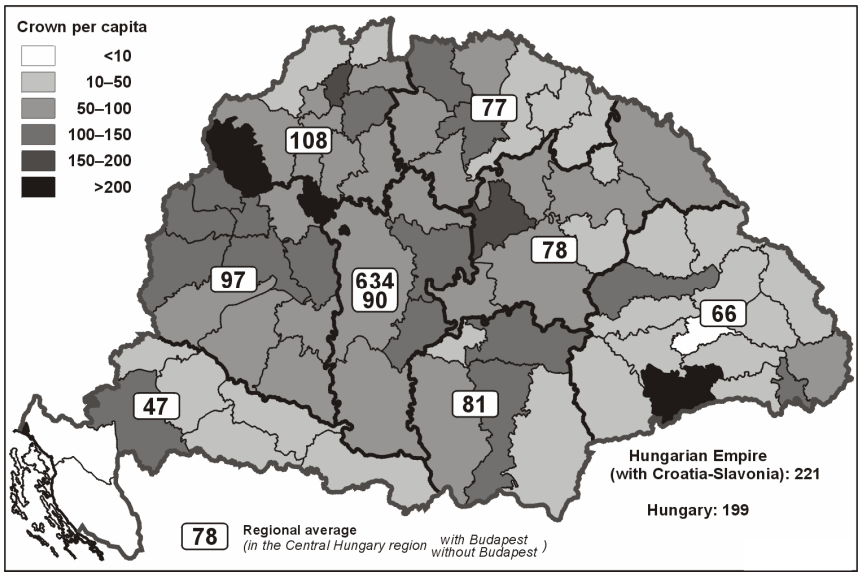


Source: Edited by the author.

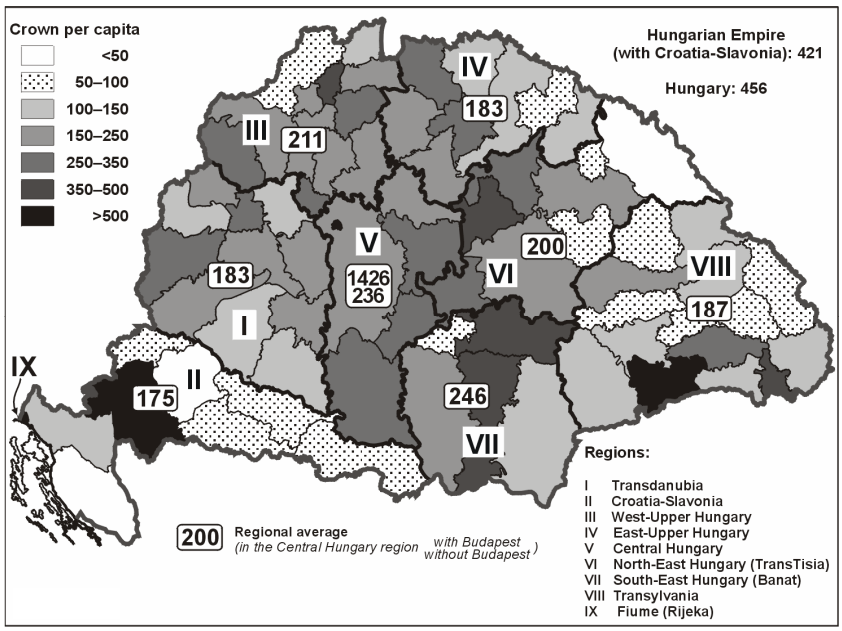
Figure 11

The regional breakdown of per capita bank & savings bank assets in Hungary, 1894, 1909

a) 1894



b) 1909



Source: Edited by the author.

4 The banking functions of the urban network in the early 20th century

4.1 Surveying the central-place bankig functions of cities

The advanced, financial infrastructure contributed to the spread of the innovation processes which were intermediated largely by the banking system serving as a background for economic-social modernization. The banking activity as the main capital source of regional modernization played an important role in the diffusion of the modern management techniques and entrepreneurial culture, and through lending activities banks became the major stimulators of the urban development (*Hijatela,* 1987). Urbanization process was strongly determined by pecuniary conditions and primarily cities became central poles of banking innovation. Banking network existed in the turn of the 19/20th century was dominated by the locally founded institutions. The comparative analyses of urban history have special importance from the point that the features of modernisation were perceived almost exclusively on urban level only and the urban frameworks having been formulated in the early years of the 20th century, as a path-dependent process have had an influence on urban development determining the image of cities until our present time.

The definition of a geographical place's rank on the basis of population size, or the marking of administrative functions are insufficient criteria for evaluating its urban functions and based on its central-place functions. From this point the *provisional supply functions originating from a city's central-place functions*. Services rendered by cities for their hinterland (gravity zone, agglomeration, county, region) have primary importance but interregional and international economic relations are also indispensable elements from the point of evaluation. The earlier studies, although they are identifying the relationship between urban development and the modernisation of economy pretty well, still overstate the role of industrialisation in urban development and consider it as the primary driving force of urbanisation. In fact the 'world of cities' is the world of financial management and financial markets. We must not forget that money, in essence, is the product of the urban civilisation. *The development of monetary and credit system not only stimulated economic development but played such a great role in urban development as industrialisation itself* (*Bairoch,* 1988). Urban development in Europe and Hungary in the 19th and 20th centuries cannot be identified with the development of industrial sector only. On the contrary, in several cases, predominantly industrial towns (e.g. Ózd, Újpest, Rózsahegy [Ružomberok], Vajdahunyad [Hunedoara] produce a lower level of urban development than those having commercial and other service profiles besides their industrial functions (e.g. Temesvár [Timişoara], Pozsony [Bratislava], Nagyvárad [Oradea], Győr) (*Gyáni,* 1995). Several papers verify that

in Hungary the development of large scale industry, with the exclusion of Budapest, had no direct influence for urbanisation between the last quarter of the 19th century and 1945, the first stage of modernisation. The development of provincial cities was not the outcome of the development of heavy industry, the building of factories only partly contributed to the fast modernisation of infrastructure in provincial centres. Industrialisation itself was also partly bound to cities. In many cases industrialisation started not in traditional urban centres but in small settlements sometimes even not having the legal status of a city (Salgótarján, Petrozsény [Petroşani], Diósgyőr). This was providing a rural character to certain sectors of heavy industry (*Gyáni*, 1997).

During the 20th century, due to the development of infrastructure the importance of service sectors significantly increased, though very few researches were studying their role in the urban development of Hungary. This is even true that during the last fifty years *cities were turning from industrial profile into commercial-service centres*. The importance of studies on the economic history of cities is based on the fact that economic potentials of the regions or cities were always depending on the economic performance of cities. The other reason why the research of the business and financial service functions of cities would be important is that advanced banking, insurance and financial infrastructure contributed to the spread of credit system innovations serving as a background for socio-economic modernisation. Banking activities, as *the major capital resources of regional modernisation*, are the *multiplicators of urbanisation* through the spread of modern management techniques, business forms and development of infrastructure. In this way financial institutions have a fundamental role in the development of the cities where they are sited. The development of urban economy and urbanisation are both determined by financial conditions. By the beginning of the 20th century *the Hungarian cities became financial centres* due to the development of banking and savings bank network. In this way *financial centres were also the catalysts of Hungarian urbanisation*. This explains why the research of the spatial aspects of capital flow within the credit system would be an important indicator of the transforming and socially rising urban system.

This survey attempted to outline the spatial distribution of the capital turnover, accepting the hypothesis that the regional differences of the urban development can be revealed with the help of the available capital resources (*Gál,* 1997a). *We analysed the urban network in the early 20th century on the basis of the cities' central-place banking function in order to identify the group and hierarchical order of cities being active driving forces of modernisation. We also marked those cities that played only minor role in Hungary's economic developmen*t (*Gál,* 1997b). We studied not only the spatial location of the banking network but the impacts and role of financial institutions and bankers on urban development through some examples. The major conclusions of these studies are that by the definition of *finan-*

cial central-place functions the group of economically booming cities could be identified. The most important result of the survey was that *the central-place functions of banking* can be defined and the dynamically growing group of cities and their banking hinterland can be identified. The hierarchical order (central place function of banking) of the Hungarian cities were set up on basis of the *breakdown of banking turnovers' proportion* (deposits and assets) *supplied the cities' hinterland* using the method of *CHRISTALLER'S central-place theory (1933, 1966)* by calculating the so called *significant surplus ratio* (*Gál*, 1997a).[13] In addition to this, the central-place function of the cities were complemented using the additional data of institutional hierarchy of banks and the aggregated sum of balance sheet items of all institutions in the case of each settlement. Besides these calculations the financial importance of cities was calculated by the cumulated absolute balance data of the city's financial institutions. These analyses – besides informing on a city's economic importance and the size of its gravity zones – also give an answer for the question whether a city was functioning as an innovative-financial centre within the urban network.

This survey attempted to outline the spatial distribution of the capital turnover, accepting the hypothesis that the regional differences of the urban development can be revealed with the help of the available capital resources (*Gál*, 1997b). The calculations were completed on the basis of the database for the year of 1909 just for those settlements with central-place (urban) functions, and banks and/or savings banks locations where the volume of either the sum total of deposits or assets exceeded 2 million crowns. We took the volume of the assets, deposits, and the proportion of the current accounts into consideration, and further those institutions closely related to the banking (branch of the central bank, Boards of Inland Revenue, chambers of commerce and industry). In 1909 3458 Hungarian settlements had some financial institutions. 868 settlements had a bank and/or savings bank, of them 175 cities' financial role was verified in Hungary. According to the survey examines the banking function of the Hungarian cities, central-place functions of 175 settlements based on banking can be proved. Thus, *69% of functional urban*

[13] It was *Christaller*, a German geographer, whose *theory on central location* emphasizing the central character of cities served as a theoretical basis for significance surplus calculations. The calculated significance surplus indices are showing the ratio of city bank deposits in their provinces and serving as a basis for uban hierarchy. The results – besides indicating the cities' economic significance are also informing whether a city was functioning as an *innovative-financial centre* or not. This correlation suggests that the geography of the evolution of banking hinterlands, which were based on capital spreading, helps account for the general long- term prosperity of those cities - a claim often made but rarely demonstrated. I processed data of those cities in which the sum-total deposits were two million Crowns (Korona) or more by means of the *following formula: K= Fv-Lv • (Fm/Lm)* where K equal with the Significance-surplus of a certain city, Fv equal with the sum-total of deposits of a city's banks in1909, Lv equal with population of a city, Fm equal with the sum-total deposits of a city's hinterland, Lm equal with population of a city's hinterland.

settlements had a kind of banking centre function). *According to the calculations the hierarchical groups of the cities were clearly distinguishable on the basis of* significant surplus ratio being *the* base *of banking functions*. On the basis of calculation *the main hierarchical groups of cities on the level of banking network* have clearly been formulated

On the top of ranking a kind of correlation between the relative weight of financial roles and the relative financial importance of cities may be observed with occasional sharp deviations. *By sorting the volume of deposits and assets stocks and also the calculated significant banking surplus ratios we can see a very strong correlation on the top of ranking* (*Table 7*).

Table 7

*The hierarchical ranking of cities by banking deposits and asset stocks in year 1909**

Ranks of the cities by deposits	Million crown	Ranks of the cities by assets	Million crown
BUDAPEST	1,175	BUDAPEST	5,262
1. Zágráb [Zagreb]*	117.6	1.Zágráb [Zagreb]	296.0
2. Arad	77.7	2. Nagyszeben [Sibiu]	196.0
3. Pozsony [Bratislava]	70.4	3. Arad	115.0
4. Temesvár [Timişoara]	56.0	4. Temesvár [Timişoara]	110.0
5. Nagyvárad [Oradea]	50.5	5. Debrecen	77.5
6. Nagyszeben [Sibiu]	46.3	6. Pozsony [Bratislava]	73.0
7. Debrecen	42.8	7. Nagyvárad [Oradea]	71.5
8. Szeged	40.7	8. Fiume [Rijeka]	66.0
9. Miskolc	38.6	9. Szabadka [Subotica]	58.4
10. Kolozsvár [Cluj-Napoca]	35.2	10. Szeged	57.2
11. Fiume [Rijeka]	30.5	11. Miskolc	53.4
12. Győr	28.0	12. Kolozsvár [Cluj-Napoca]	49.5
13. Székesfehérvár	26.7	13. Brassó [Braşov]	40.4
14. Szabadka [Subotica]	26.2	14. Kassa [Košice]	37.2
15. Pécs	24.5	15. Székesfehérvár	34.2
16. Szombathely	24.4	16. Győr	33.2
17. Brassó [Braşov]	23.6	17. Szolnok	32.6
18. Kassa [Košice]	23.4	18. Pécs	29.0
19.Szatmárnémeti Satu Mare]	21.5	19. Szombathely	28.8
20. Újvidék [Novi Sad]	21.2	20. Szatmárnémeti [Satu Mare]	28.2
21. Nyíregyháza	21.0	21. Nyíregyháza	27.6
22. Nyitra [Nitra]	20.1	22. Újvidék [Novi Sad]	27.4
23. Túrócszentmárton [Martin]	19.7	23. Marosvásárhely [Târgu Mureş]	26.0
24. Besztercebánya [Banská Bystrica]	18.8	24. Kecskemét	25.9
25. Szolnok	18.7	25. Nagykanizsa	25.2
26. Esztergom	18.5	26. Zombor [Sombor]	24.4
27. Nagykanizsa	18.4	27. Nyitra [Nitra]	24.2

Count. Table 7

Ranks of the cities by deposits	Million crown	Ranks of the cities by assets	Million crown
28. Versec [Vršac]	17.3	28. Túrócszentmárton [Martin]	23.5
29. Zombor [Sombor]	17.7	29. Nagybecskerek [Zrenjanin]	22.2
30. Sopron	17.6	30. Besztercebánya [Banská Bystrica]	21.8
31. Nagyszombat [Trnava]	17.0	31. Baja	21.1
32. Marosvásárhely [Târgu Mureş]	16.0	32. Esztergom	21.0
33. Veszprém	15.8	33. Versec [Vršac]	19.9
34. Baja	15.1	34. Hódmezővásárhely	19.4
35. Kaposvár	14.3	35. Cegléd	19.3
36. Kecskemét	14.2	36. Veszprém	19.2
37. Pápa	13.9	37. Nagyszombat [Trnava]	18.9
38. Hódmezővásárhely	13.8	38. Eger	18.7
39. Eger	13.8	39. Eperjes [Prešov]	17.2
40. Eperjes [Prešov]	13.7	40. Balassagyarmat	17.2
41. Rimaszombat [Rimovská Sobota]	13.67	41. Gyöngyös	16.8
42. Kőszeg	13.1	42. Sátoraljaújhely	16.0
43. Sátoraljaújhely	12.78	43. Rimaszombat [Rimovská Sobota]	15.7
44. Nagybecskerek [Zrenjanin]	12.77	44. Komárom	14.7
45. Cegléd	12.76	45. Pápa	14.2
46. Komárom	12.6	46. Kőszeg	14.0
47. Losonc [(Lučenec]	12.3	47. Gyula	13.7
48. Nagykőrös	11.4	48. Rózsahegy [Ružomberok]	13.6
49. Balassagyarmat	11.2	49. Nagykároly [Carei]	13.3
50. Szekszárd	11.0	50. Losonc [(Lučenec]	13.2
51. Segesvár [Sighişoara]	11.0	51. Sopron	13.0
…		…	

*Including only the first 50 provincial cities.
Source: Own calculation, using the following resources: Vargha, 1913; Thirring, 1912; Galánthai Nagy, 1899–1917.

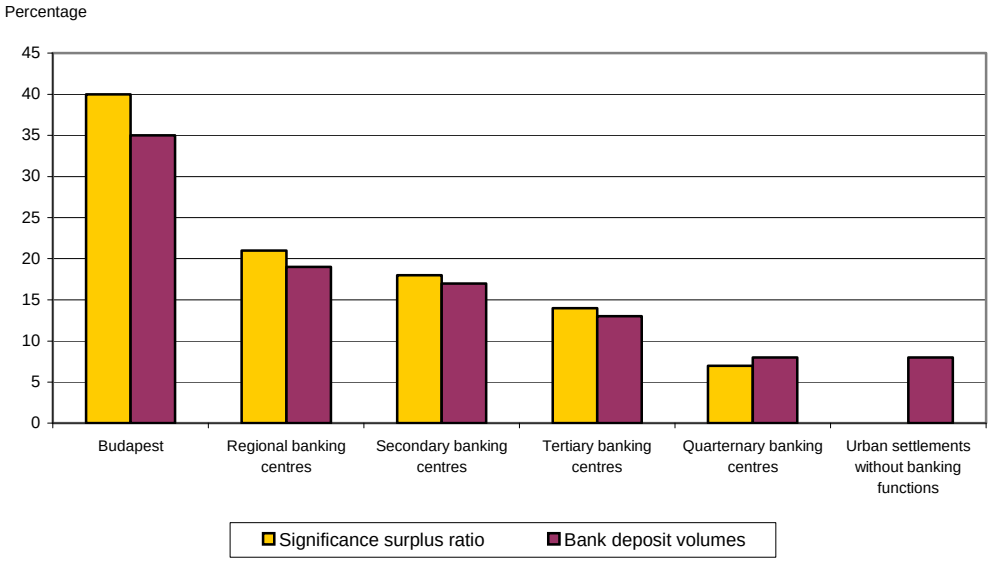
The spatial distribution of banking functions within the settlement system was more strongly concentrated than any other sectors, i.e. fewer settlements had banking than other service functions (post office, police station, notary office etc.). The deployment of central banking services into large cities resulted in a *strong spatial concentration of banking innovation:* 83% of Hungary's total bank deposit stocks were concentrated in those 175 settlements that had central financial functions on the basis of their banking surplus ratio indices.[14] Budapest, as a national

[14] The remaining 17% of deposits were concentrated in the agricultural market towns of Great plain with relatively high deposit volumes but without significance surplus, such as: Kecskemét, Szentes, Jászberény, Nagykőrös and Karcag.

banking centre with the 13 regional banking centres had an above 60% banking surplus ratio (*Figure 12*). This was higher than its share of deposits (48%). The fact that Budapest with the 48 cities followed in the ranking[15] concentrated about 80% ratio of banking surplus but only 12% of the country's total population throws reveals some peculiar spatial features of countries integrating with some delay to global capitalist markets and *explains their increasing regional and local level spatial disparities.* This *reflects some of the characteristics of modernization in the late comer countries, namely the enormous increase of the territorial inequalities.* Not only industrialization but banking services developed spatial inequalities throughout Europe that were usually larger in the peripheral countries than in the core regions. In consequence of this in Hungary financial innovation and industrialization concentrated into fewer centres than in the Western European core regions.

Figure 12

The breakdown of the 4 hierarchical groups of the Hungarian banking centres in terms of significance surplus ratio and volume of banking deposit, in percentage, 1910



Source: Author's calculation.

[15] Regional and secondary banking centres together.

4.2 Central places of the Hungarian banking network

4.2.1 The hierarchical ranking of cities by bank deposit distribution

The 175 cities with *central-place banking functions* were categorised into four hierarchy levels[16] (*Figure 13, Table 8*). On the basis of a detailed analysis of the spatial breakdown of the major banking centres based on deposit stock distribution – the most dynamically developing provincial cities – *the regional banking centres* of modernisation were marked (*Gál,* 1999). It was the most dynamically developing provincial cities that were functioning as regional banking centres. They were located at the 'focal points' of the most densely populated parts of Transdanubia, West Upper Hungary (Pozsony [Bratislava], Győr, Pécs, Székesfehérvár and Szombathely), and were following the peripheral market lines of the Great Plain (Miskolc, Temesvár [Timişoara], Nagyvárad [Oradea], Arad, Debrecen). In the lagging regions of Transylvania and Croatia only some islands of regional banking centres were formed (Kolozsvár [Cluj-Napoca], Nagyszeben [Sibiu], and Zágráb [Zagreb]) (*Figure 14*).

Analysing the spatial distribution and importance of the 13 regional banking centres we came to the following conclusions (*Gál,* 1999):

1) Not only *the number of banks but the differences among their financial importance were higher* in the early 1900s than between the two World Wars. Before opening up the reasons of differences it is worth taking a glance at the spatial distribution of regional banking centres. Taking the number of regional centres into consideration it can be stated that not only their numbers was more but the inequalities was wider among them in the early 20th century than in the interwar period. According to M. Hechter, who was taking interest of modernization in the peripheries, argues that the hierarchical division of the settlement network is more advanced and the spatial inequalities are bigger in a more peripheral situation, following his argument the regional inequalities in Hungary were very much determined by the regional characteristics of the town-network (*Hechter,* 1975). Before the explanation it is practical to observe the spatial distribution of these regional bank centres.

[16] *Besides Budapest, the national finnacial centres, regional centres, secondary banking centres, tertiary and quaternery banking centres were categorised.* Although banks of 125 settlements with urban functions had more than 2 million crowns aggregate bank deposit stocks but had no significance surpluses (central-place functions) in banking and their deposit sums were lower than it could be expected on the basis of their local population. It was typical in the agricultural market towns of Great Plain and int he declining Upper Hungarian small towns that they were unable to provide sufficient credit for the locals and were rather more depending on external credit resources.

Figure 13

The Hungarian urban hierarchy based on central-place banking functions in 1910

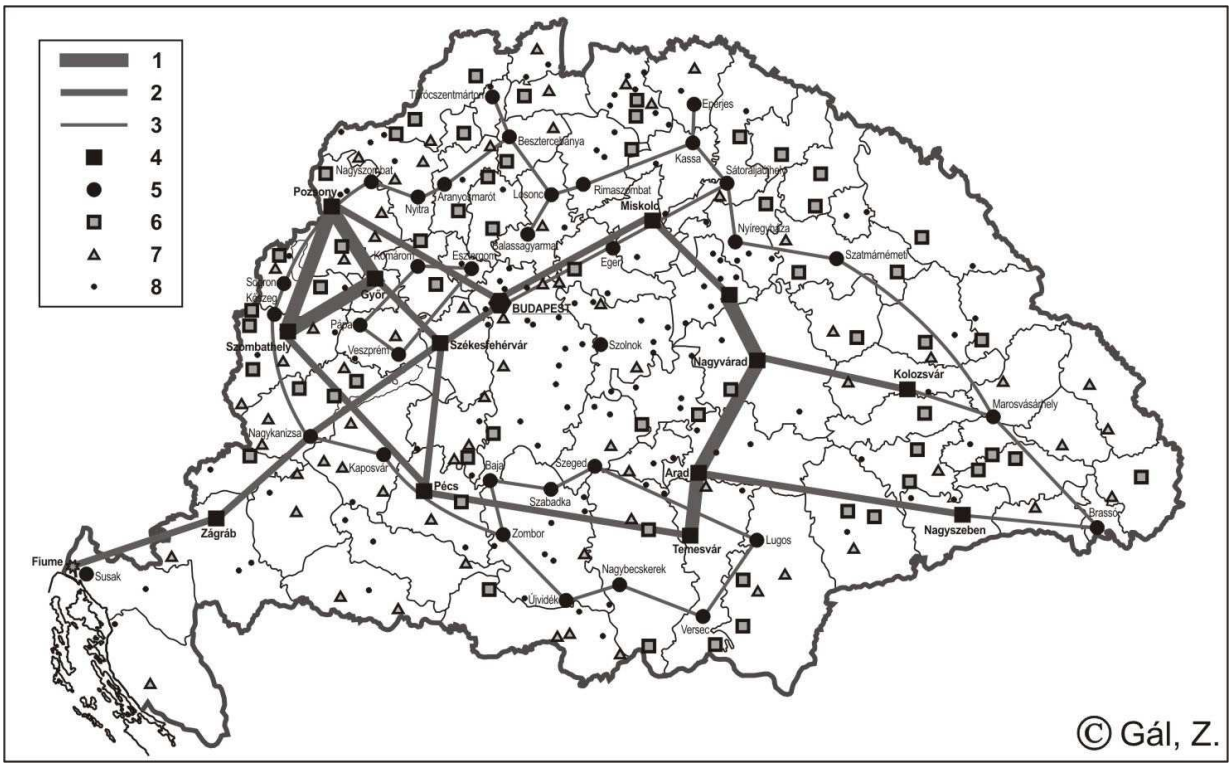


Table 8

*The hierarchical rank of the Hungarian cities on the basis of central-place banking functions (based on bank deposit stocks calculated by per capita county and national averages in 1909)**

Hierarchy calculated by the per capita county deposit	Significant surplus ratio of banking in 1000 crowns	Hierarchy calculated by per capita national average deposit	Significant surplus ratio of banking in 1000 crowns
National banking centre (1)			
1. BUDAPEST	990,000	1. BUDAPEST	990,000
Regional banking centres (13)			
2. Zágráb [Zagreb]	100,392	2. Zágráb [Zagreb]	103,634
3. Arad	64,164	3. Arad	65,614
4. Pozsony [Bratislava]	48,684	4. Pozsony [Bratislava]	55,264
5. Temesvár [Timişoara]	46,000	5. Temesvár [Timişoara]	42,029
6. Nagyvárad [Oradea]	43,260	6. Nagyszeben [Sibiu]	39,805
7. Nagyszeben [Sibiu]	36,054	7. Nagyvárad [Oradea]	38,320
8. Miskolc	30,851	8. Miskolc	28,680
9. Kolozsvár [Cluj-Napoca]	26,745	9. Debrecen	24,865
10. Székesfehérvár	21,141	10. Kolozsvár [Cluj-Napoca]	23,544
11. Debrecen	21,100	11. Fiume [Rijeka]	20,845
10. Pécs	19,457	12. Székesfehérvár	19,651
13. Győr	18,653	13. Győr	19,407
14. Szombathely	18,100	14. Szombathely	18,471
Secondary banking centres (35)			
15. Nyitra [Nitra]	17,736	15. Szeged	17,856
16. Szatmárnémeti [Satu Mare]	17,360	16. Túrócszentmárton [Martin]	17,100
17. Túrócszentmárton [Martin]	16,909	17. Nyitra [Nitra]	16,984
18. Besztercebánya [Banska Bystrica]	16,415	18. Besztercebánya [Banská Bystrica]	16,711
19. Kassa [Košice]	15,792	19. Brassó [Braşov]	15,671
20. Újvidék [Novi Sad]	15,650	20. Esztergom	15,056
21. Nyíregyháza	15,742	21. Pécs	14,910
22. Nagykanizsa	15,425	22. Szatmárnémeti [Satu Mare]	14,813
23. Szeged	15,000	23. Újvidék [Novi Sad]	14,718
24. Esztergom	14,319	24. Nagyszombat [Trnava]	14,170
25. Szolnok	13,830	25. Nyíregyháza	13,628
26. Marosvásárhely [Târgu Mureş]	13,791	26. Nagykanizsa	13,308
27. Veszprém	13,258	27. Szolnok	13,302

Count. Table 8

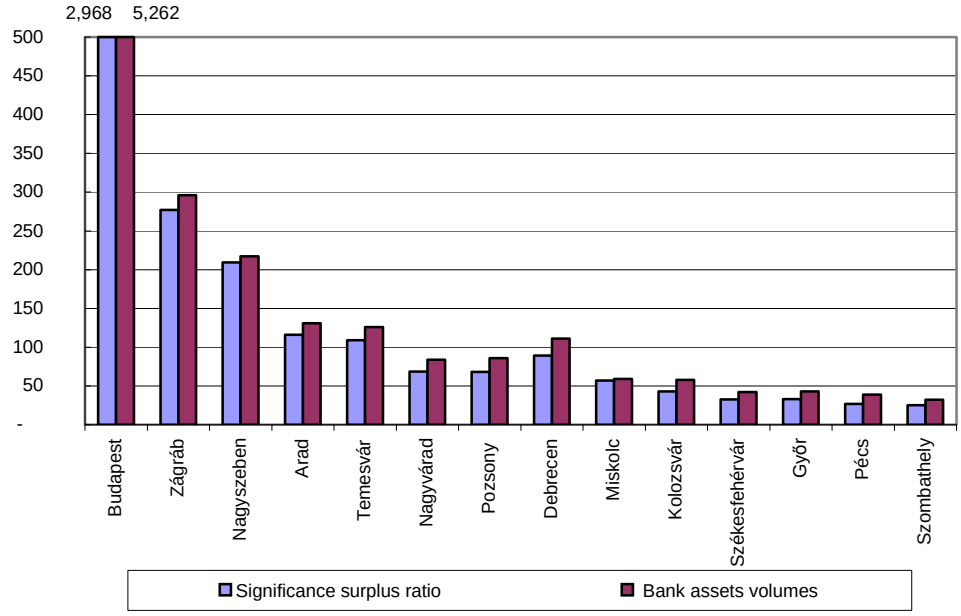
Hierarchy calculated by the per capita county deposit	Significant surplus ratio of banking in 1000 crowns	Hierarchy calculated by per capita national average deposit	Significant surplus ratio of banking in 1000 crowns
28. Sopron	13,157	28. Veszprém	12,980
29. Nagyszombat [Trnava]	12,867	29. Versec [Vršac]	12,449
30. Zombor [Sombor]	12,857	30. Rimaszombat [Rimovská Sobota]	12,340
31. Rimaszombat [Rimovská Sobota]	12,359	31. Zombor [Sombor]	11,814
32. Brassó [Braşov]	12,313	32. Kőszeg	11,517
33. Eperjes [Prešov]	12,036	33. Marosvásárhely [Târgu Mureş]	11,418
34. Kaposvár	11,956	34. Baja	11,092
35. Baja	11,848	35. Sopron	11,022
36. Versec [Vrŝac]	11,843	36. Eperjes [Prešov]	10,566
37. Kőszeg	11,419	37. Aranyosmarót [Zlaté Moravce]	10,250
38. Sátoraljaújhely	10,965	38. Pápa	9,964
39. Szabadka [Subotica]	10,776	39. Losonc [Lucenec]	9,809
40. Losonc [Lucenec]	10,754	40. Kaposvár	9,541
41. Komárom [Komarno]	10,534	41. Kismarton [Eisenstadt]	9,275
42. Eger	10,460	42. Balassagyarmat	9,118
43. Aranyosmarót [Zlaté Moravce]	10,430	43. Sátoraljaújhely	8,938
44. Pápa	10,347	44. Segesvár [Sighişoara]	8,764
45. Susak	10,149	45. Susak	8,418
46. Lugos [Lugos]	10,023	46. Eger	8,356
47. Balassagyarmat	9,907	47. Komárom	8,256
48. Nagybecskerek [Zrenjanin]	9,621	48. Szabadka [Subotica]	8,123
Tertiary banking centres (58)			
49. Kismarton [Eisenstadt]	9,475	49. Szekszárd	7,929
50. Segesvár [Sighişoara]	9,213	50. Nagykároly [Carei]	7,867
51. Nagykároly [Carei]	9,048	51. Nagybecskerek [Zrenjanin]	7,757
107. …	…	…	….
Quaternary banking centres (68)			

*The first 50 banking centres of 175 are included here.

Source: Own calculation, using the following resources: A Magyar Szent Korona országainak hitelintézetei az 1894–1909. években (ed. Vargha, Gyula). Magyar Statisztikai Közlemények (Új évfolyam) 35. k., Budapest, Pesti Könyvnyomda Rt., 1913.; (Nagy) Magyar Compass, (ed. Galánthai Nagy, Sándor), Budapest, 1899–1917., Pénzügyi Compass 1900–1913.

Figure 14

Hierarchical ranks of regional banking centres by asset stocks volumes (million crows), 1910



Source: Edited by the author.

2) In the early 1900s *a special 'multiple-ring' formation of urban network having shaped up at the early 20th century may also reflect the financial role of cities (Tóth–Golobics,* 1996*)*. While the most significant medieval towns (economic centres) were situated alongside the western and northern national borders lining up in a semi-circle formation *the most important banking (economic) centres of Hungary were* surrounded the central areas of the country *at the beginning of the 20th century* (*Figure 13*). The analysis of the hierarchical spatial structure of cities having been organised by their financial (economic) functions shows that the network of cities on the edge of core areas was surrounded by a ring of secondary banking centres situating closer to the outer peripheries. The structure of the urban-financial hierarchy was not homogenous yet but the absence of banking centres in some regions can clearly be identified (in the core areas of the Great Plain and in peripheral border regions). The territorial breakdown of regional banking centres may also be explained by the fact that modernisation was most successfully carried out in the core areas of the Carpathian Basin that were inhabited

mostly by Hungarians, while the peripheries inhabited by different ethnic minorities – provided with poorer conditions for agricultural farming. In these peripheries lower number of cities with worse living conditions was located, and the social and cultural level of their population (e.g. literacy) was below the core areas' level.

3) Our research also revealed that the development level of the cities and their regions rarely coincided. The differences of regional development did not provide enough explanation for the understanding of the different development paths. It was also proved that regional disparities within the country were only partial explanatory factors and cities' ranking on *the leading cities of the hierarchy were in many cases sharp contrast with their regional environments (hinterlands). Thus, in several cases the development level of cities was not on the same level with their region*. Our statistical data may demonstrate a more general conclusion that the spatial inequalities are increasing from the core towards the peripheral regions, hence the bigger cities, as the centres of banking, other services, manufacturing and administration, became more sharply detached from their hinterland in the peripheral regions. The cities positioned in the top of our hierarchy were in sharper contrast to their surroundings as they increasingly separated from their hinterlands in economic and social respects. The money-markets had a greater developmental dynamic in the once peripheral Eastern-South Eastern regions of the country in contrast to the Transdanubian markets which were considered to be traditionally more advanced. This resulted such a paradoxical situation that Transdanubian cities – although were far from being underdeveloped – produced lower development dynamics than cities located in the less favoured easternmost areas.[17] Hence, it is not surprising that from the 10 largest bank centres with the biggest sum-stock of assets and deposits 8 were located in the eastern regions (*Figure 15–16*). In these regions a contiguous urban belt, coincided with the traditional market-line, was extended from Szatmár [Satu Mare] through Debrecen, Nagyvárad [Oradea], Arad and Temesvár [Timişoara] to Versec [Vršac]. Economic and urban growth was also the most dynamic alongside the market-line forming an economically prospering *East Hungarian innovation zone* sharply separating from its more underdeveloped hinterland. Once a peripheral eastern regions produced an *innovation and entrepreneurial friendly environment* alongside this market-line and generating dynamic urban development in their hinterlands. The most advanced regional banking centres were located partly in the eastern

[17] In most cases intra-regional disparities were stronger than the overall difference between east and west Hungarian regions. This was further increased by the site selection of banking capital as large banks preferred opening new offices in economically prospering large cities.

regions, partly in the *West-Hungarian innovation triangle* (Pozsony [Bratislava], Győr, Szombathely).

The available bank deposit statistics enable us to compare the *relative indices of significant surplus ratio* calculated by per capita county or per capita national average deposits – our hierarchy– with the *quantitative indices of banking functions (asset & deposit stocks).* In our first case a ranking by *bank deposits* concentrated in urban settlements seems to be the most suitable means of analysis (*Beluszky*, 1990). The available statistics on banking stocks and the calculated relative hierarchical rank make possible to compare these indicators. Relative rankings among the leading provincial towns changed considerably (*Figure 15–16*). The regional centres of the Eastern market-line, largely due to their deposits and assets concentration and distinguishable hierarchical ranks, became economic counter-poles of Budapest, while some traditional centres were declined or loosed their leading positions by the early 1900s (in Upper Hungary [Kassa/Košice], Transdanubia [Pécs, Nagykanizsa, Győr, Sopron]) (*Gál*, 2002).

The regional bank centres of our hierarchy (based on deposit distribution) can be found among the first twenty cities ranked on the basis of assets, so in the upper level usually strong correlation appeared between the quantitative and qualitative ranks. *There is strong correlation between the volume of bank deposits and the significant surplus ratio on the top levels of the hierarchy* (*Figure 15, Table 6–7*). Thus – with the exception of a few cases – the volume of bank deposits is also an indicator of the city's hierarchical position. Consequently all regional financial centres are among the top 16 cities with the largest deposits.

In the comparison of regional banking centres from this aspect – despite its large deposit stocks in banks – the lower, 11th position of *Debrecen* seems to be surprising. This statement is also valid *for Szeged and Szabadka [Subotica]* in the category of innovation centres but *Kassa's [Košice]* and *Brassó's [Braşov]* low regional banking surplus ratios compared to their deposit volumes are also unusual. At the same time the comparison of Szeged's and Brassó's [*Braşov*] indices with the national average will eliminate these extreme values. It can also be found that the cities in the core of the Great Plain usually occupy a better position on the basis of absolute banking stocks, than in the hierarchical rank. The deviation between the quantitative ranks and the hierarchies can be noticed not only in the case of the Great Plain cities, but in the case of cities which fulfil special functions (e.g. Fiume [Rijeka] (*Gál*, 1999, 2000a).

Without going into a detailed analysis of the reasons it should be cleared that due to their earlier geographical location, the above-mentioned three cities (Debrecen, Szeged, Szabadka [Subotica]) had lower banking-innovation potentials than it could have been expected on the basis of their local banking deposits.

Figure 15

Concentration of bank deposit stocks in the Hungarian cities, 1909

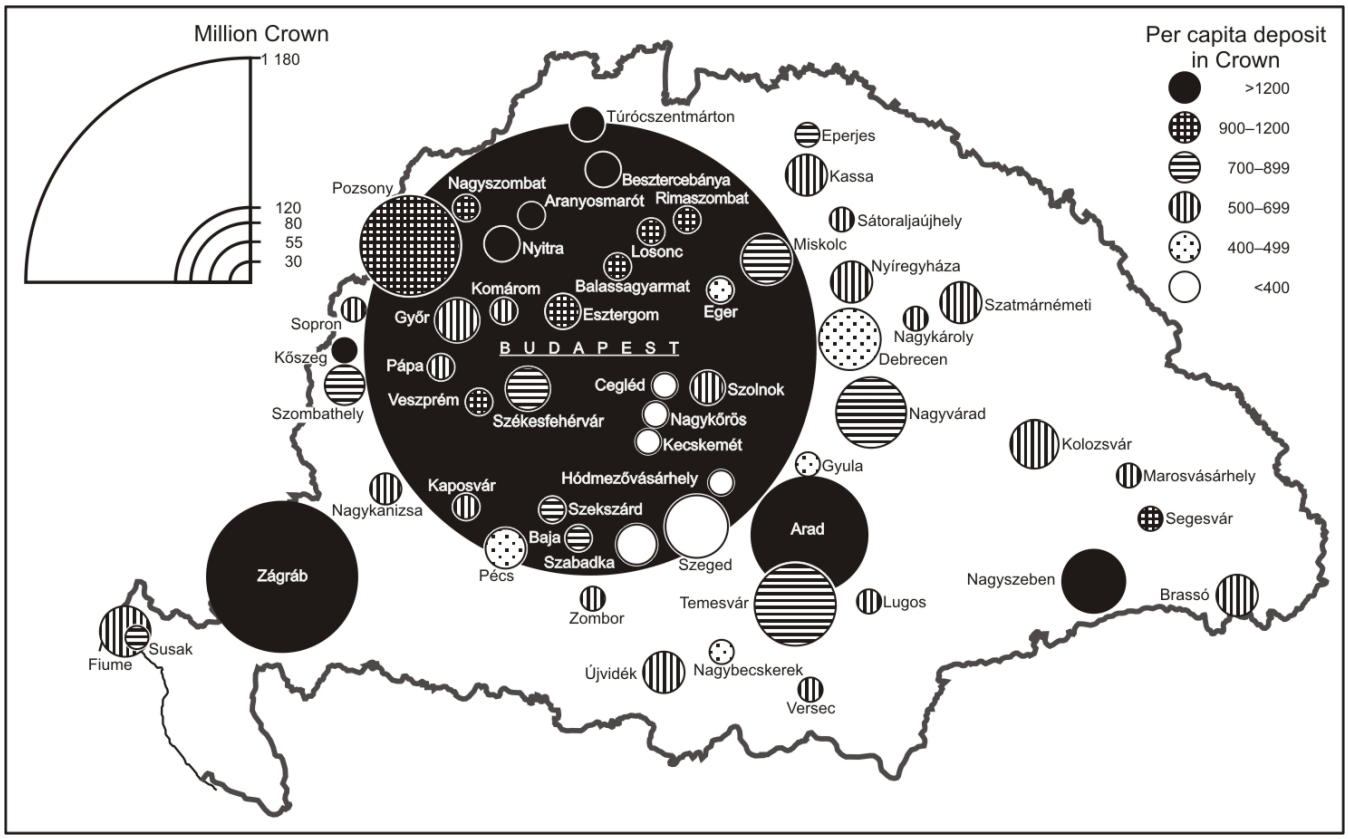
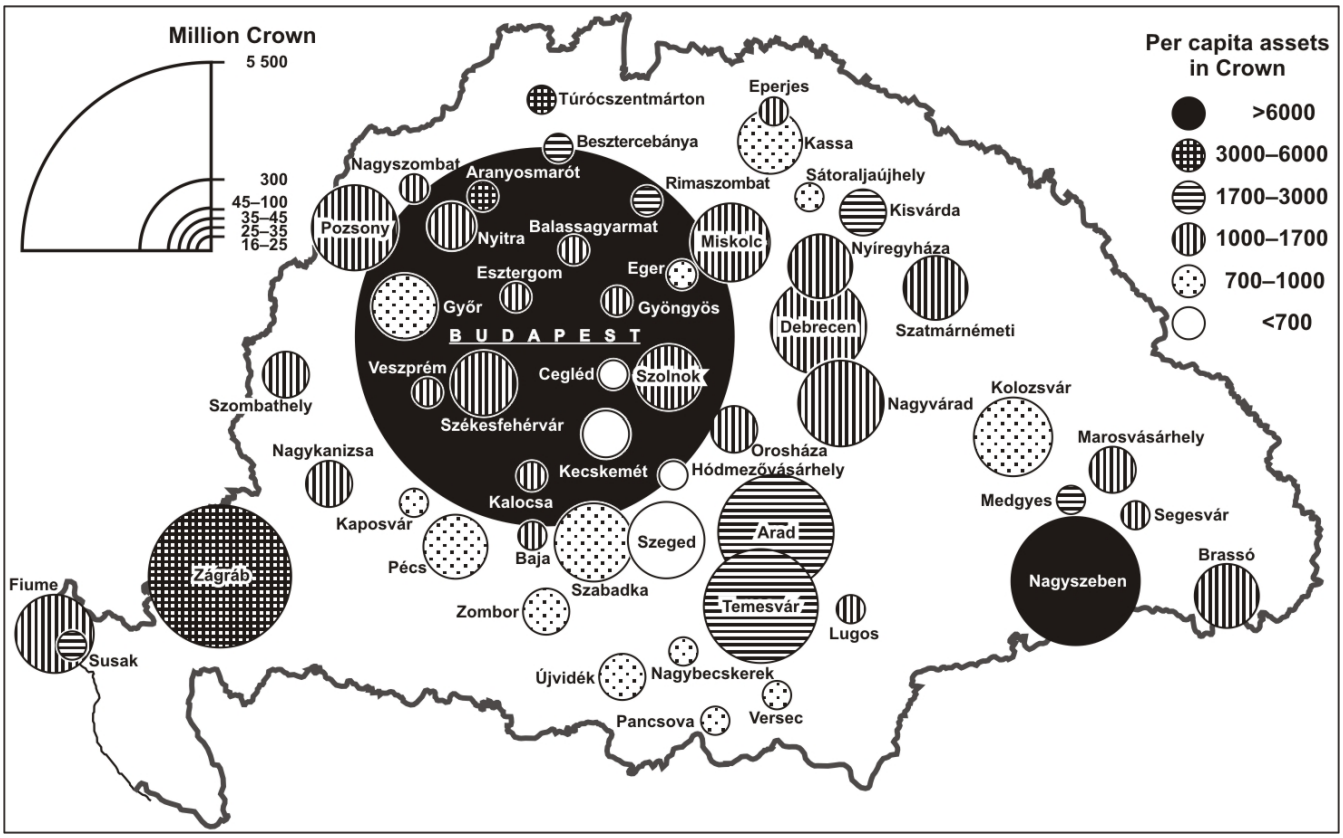


Figure 16

Concentration of banking assets in the Hungarian cities, 1910



This may be explained by their geographical position, smaller and more fragmented gravity zone with the scarcely populated scattered farms and high number of inner city population. The low position of the two latter cities (Szeged, Brassó [Braşov]) resulted from the dynamic development of other cities performing industrial and commercial banking functions and from their sharpening competition between the two traditional rivalling cities (Miskolc and Nagyszeben [Sibiu]). *The lower levels of hierarchy show more or less even distribution regarding quantitative indices and hierarchical positions*. All these suggest a direct link between local resources measured by quantitative indices and the relative importance of cities measured by the financial role of cities. As a connection with this phenomenon it should be noted that all the 49 cities with the largest bank deposits are listed in Level I or Level II of our hierarchy. At the same time some Upper Hungarian small towns and *some other cities on the inner ring of the Great Plain*[18] show some declinations from the normal trend as their hierarchical positions are lower than would be expected from the volume of their bank deposits. The cities on the Great Plain having no important financial functions in our hierarchy (e.g. Kecskemét, Hódmezővásárhely, Cegléd and Nagykőrös), although on the basis of their *bank deposits* were positioned on the medium part of our hierarchy (36^{th}, 38^{th}, 45^{th} and 48^{th} positions). From quantitative aspects they were ranked higher than were in the hierarchical order of cities, even Hódmezővásárhely, having the highest position of them, was only the 166^{th} in the financial hierarchy. At the same time these comparisons also point out that considering pure bank balance data urban financial institutions of the inner ring of the Great Plain had relatively large amounts of capital assets. The relative weakness of banking functions are originating from the specific structure of local society and economy as certain researches in banking history point out financial institutions in several cases were unable to satisfy all the banking demands of large local population (entrepreneurs).

4.2.2 Hierarchical ranking of cities by assets distribution

Besides the urban hierarchy calculated on the basis of bank deposits *cities were ordered into a hierarchical ranking by banking assets.* The SPSS cluster program used for computing banking assets surplus ratio calculated not only by the variables of provincial service ratio (the ratio of banking service performing central-place function and this fraction of total turnover supplies only for the centre's hinterland) but also involved settlement size and *the per capita assets volumes into its calculations. This is the reason why this ranking is slightly differing from the ranking prepared on the basis of banking surplus ratio* (*Table 9*).

[18] Certain parts of Pest-Pilis-Solt-Kiskun and Szabolcs counties and the territory of Csongrád, Csanád, Békés, Jász-Nagykun-Szolnok and Hajdú counties

Table 9

The hierarchy of the Hungarian cities on the basis of central-place banking functions by asset stocks, a cluster analysis, 1909

Ranks of the cities by asset stocks	Crown	Ranks of the cities by central-place banking functions of significant surplus ratio *	Crown
BUDAPEST	2,548,796,000	BUDAPEST	2,968,230,077
1. Zágráb [Zagreb]	296,000,000	**1. Zágráb [Zagreb]****	277,277,000
2. Nagyszeben [Sibiu]	217,500,000	**2. Nagyszeben [Sibiu]**	209,563,107
3. Arad	131,000,000	**3. Arad**	116,029,658
4. Temesvár [Timişoara]	126,000,000	**4. Temesvár [Timişoara]**	108,804,465
5. Debrecen	111,000,000	**5. Debrecen**	89,023,227
6. Pozsony [Bratislava]	86,480,000	**7. Nagyvárad [Oradea]**	68,691,947
7. Nagyvárad [Oradea]	83,900,000	**6. Pozsony [Bratislava]**	67,941,149
8. Szeged	70,500,000	10. Fiume [Rijeka]	49,695,978
9. Szabadka [Subotica]	67,700,000	11. Miskolc	57,304,217
10. Fiume [Rijeka]	61,500,000	*9. Szabadka [Subotica]***	45,277,430
11. Miskolc	59,500,000	**12. Kolozsvár [Cluj-Napoca]**	43,088,504
12. Kolozsvár [Cluj-Napoca]	57,500,000	*8. Szeged*	42,456,264
13. Brassó [Braşov]	43,800,000	*13. Brassó [Braşov]*	34,069,728
14. Győr	43,400,000	*13. Győr*	32,900,900
15. Székesfehérvár	41,500,000	*15. Székesfehérvár*	32,819,875
16. Kassa [Košice]	40,600,000	*18. Nyíregyháza*	30,883,101
17. Pécs	38,800,000	*19. Kassa [Košice]*	30,121,993
18. Nyíregyháza	37,170,000	*19. Szolnok*	29,847,614
19. Szolnok	36,668,000	*20. Szatmárnémeti [Satu Mare]*	27,230,596
20. Szatmárnémeti [Satu Mare]	35,500,000	*17. Pécs*	26,950,000
21. Szombathely	32,330,000	*21. Szombathely*	24,995,561
22. Újvidék [Novi Sad]	30,150,000	*26. Kisvárda*	24,525,497
23. Marosvásárhely [Târgu Mureş]	28,000,000	*1. Túrócszentmárton [Martin]*	23,025,219
24. Kecskemét	27,900,000	*23. Marosvásárhely [Târgu Mureş]*	22,376,464
25. Nagykanizsa	27,770,000	*22. Újvidék [Novi Sad]*	22,189,170
26. Kisvárda	26,900,000	*25. Nagykanizsa*	21,483,101
27. Zombor [Sombor]	26,600,000	*29. Nyitra [Nitra]*	21,322,687
28. Orosháza	25,430,000	*33. Besztercebánya [Banská Bystrica]*	20,746,088
29. Nyitra [Nitra]	25,150,000	*28. Orosháza*	20,153,432
30. Nagybecskerek [Zrenjanin]	24,600,000	*34. Susak*	20,008,282
31. Túrócszentmárton [Martin]	24,000,000	27. Zombor [Sombor]	19,349,459
32. Versec [Vrsac]	23,400,000	*36. Esztergom*	18,562,203

Count. Table 9

Ranks of the cities by asset stocks	Crown	Ranks of the cities by central-place banking functions of significant surplus ratio	Crown
33. Besztercebánya [Banská Bystrica]	23,300,000	30. Nagybecskerek [Zrenjanin]	18,438,000
34. Susak	23,140,000	35. Baja	18,115,890
35. Baja	23,100,000	*37. Lugos [Lugoj]*	17,963,134
36. Esztergom	22,800,000	32. Versec [Vrsac]	16,913,310
37. Lugos [Lugoj]	22,600,000	41. Veszprém	16,864,296
38. Cegléd	21,620,000	42. Nagyszombat [Trrnava]	16,704,947
39. Hódmezővásárhely	21,450,000	48. Medgyes [Mediaş]	15,455,638
40. Kaposvár	20,460,000	53. Aranyosmarót [Zlaté Moravce]	15,435,201
41. Veszprém	20,370,000	45. Balassagyarmat	15,379,781
42. Nagyszombat [Trnava]	20,300,000	46. Segesvár [Sighişoara]	15,013,881
43. Eger	19,900,000	52. Rimaszombat [Rimovská Sobota]	14,861,856
44. Gyöngyös	18,640,000	40. Kaposvár	14,742,612
45. Balassagyarmat	17,960,000	49. Kalocsa	14,483,994
46. Segesvár [Sighişoara]	17,760,000	44. Gyöngyös	14,299,582
47. Eperjes [Prešov]	17,750,000	47. Eperjes [Prešov]	13,881,449
48. Medgyes [Mediaş]	17,500,000	38. Cegléd	13,569,584
49. Kalocsa	17,100,000	43. Eger	13,251,676
50. Sátoraljaújhely	16,750,000	62. Kőszeg	12,663,749
51. Pancsova [Pancevo]	16,600,000	58. Losonc [Lucenec]	12,193,457
52. Rimaszombat [Rimovská Sobota]	16,500,000	24. Kecskemét	12,060,342
53. Aranyosmarót [Zlaté Moravce]	16,200,000	50. Sátoraljaújhely	12,024,220
54. Eszék [Osijek]	16,150,000	61. Rózsahegy [Ružomberok]	11,776,987
55. Komárom	16,050,000	51. Pancsova [Pancevo]	11,668,504
56. Gyula	16,020,000	68. Oravicabánya	11,293,277
57. Pápa	15,430,000	59. Nagykároly [Carei]	11,049,514
58. Losonc [Lucenec]	15,260,000	72. Kismarton [Eisenstadt]	10,771,699
59. Nagykároly [Carei]	14,860,000	55. Komárom	10,756,131
60. Szarvas	14,800,000	57. Pápa	10,654,450
61. Rózsahegy [Ružomberok]	14,680,000	75. Szászváros [Orastie]	10,436,736
62. Kőszeg	14,660,000	64. Szekszárd	10,297,561
63. Nagykőrös	14,250,000	56. Gyula	10,264,692
64. Szekszárd	13,840,000	76. Szentgotthárd	10,258,112
65. Sopron	13,500,000	67. Munkács [Mukačevo]	9,145,825
66. Kiskunfélegyháza	13,400,000	79. Trencsén [Trenčin]	8,990,215
67. Munkács [Mukačevo]	13,240,000	77. Kunszentmiklós	8,897,923
68. Oravicabánya	12,260,000	71. Beszterce [Bistriţa]	8,813,068

Count. Table 9

Ranks of the cities by asset stocks	Crown	Ranks of the cities by central-place banking functions of significant surplus ratio	Crown
69. Ungvár [Užgorod]	12,150,000	54. Eszék [Osijek]	8,711,044
70. Békéscsaba	12,100,000	73. Dés [Dej]	8,685,876
71. Beszterce [Bistriţa]	11,950,000	60. Szarvas	8,666,677
72. Kismarton [Eisenstadt]	11,500,000	84. Lőcse [Levoča]	8,505,864
73. Dés [Dej]	11,400,000	69. Ungvár [Užgorod]	8,140,197
74. Óbecse [Stari Beĉej]	11,350,000	82. Léva [Levice]	8,027,025
75. Szászváros [Orastie]	11,070,000	80. Zsombolya [Jimbolia]	7,898,359
76. Szentgotthárd	10,880,000	78. Varasd [Varaždin]	7,684,674
77. Kunszentmiklós	10,870,000	63. Nagykőrös	7,477,725
78. Varasd [Varaždin]	10,860,000	81. Beregszász [Beregovo]	7,374,879
79. Trencsén [Trenčin]	10,840,000	101. Rozsnyó [Rožňava]	7,286,465
80. Zsombolya [Jimbolia]	10,480,000	86. Fehértemplom [Bela Crkva]	7,248,812
81. Beregszász [Beregovo]	10,440,000	91. Bród [Slavonski Brod]	7,032,600
82. Léva [Levice]	10,320,000	93. Zsolna [Žilina]	7,004,577
83. Érsekújvár [Nové Zámky]	10,300,000	88. Topolya [Bačka Topola]	6,904,373
84. Lőcse [Levoča]	10,290,000	104. Keszthely	6,817,951
85. Szentes	10,100,000	74. Óbecse [Stari Bečej],	6,758,836
86. Fehértemplom [Bela Crkva]	9,980,000	39. Hódmezővásárhely	6,650,535
87. Vác	9,920,000	83. Érsekújvár [Nové Zámky]	6,453,964
88. Topolya [Bačka Topola]	9,860,000	90. Torda [Turda]	6,431,165
89. Karcag	9,660,000	95. Zalaegerszeg	6,389,972
90. Torda [Turda]	9,620,000	102. Vukovár [Vukovar]	6,344,917
91. Bród [Slavonski Brod]	9,450,000	92. Soroksár	6,277,235
92. Soroksár	9,440,000	97. Dunaföldvár	6,035,381
93. Zsolna [Žilina]	9,180,000	65. Sopron	5,458,116
94. Jászberény	9,000,000	87. Vác	5,428,375
95. Zalaegerszeg	8,960,000	99. Selmec, Bélabánya [Banská Belá]	5,261,155
96. Hajdúböszörmény	8,930,000	66. Kiskunfélegyháza	5,123,012
97. Dunaföldvár	8,900,000	105. Károlyváros [Karlovac]	4,721,456
98. Mezőtúr	8,900,000	89. Karcag	4,209,948
99. Selmec, Bélabánya [Banská Belá]	8,860,000	100. Máramarossziget [Sighetu Marmaţiei]	3,794,310
100. Máramarossziget [Sighetu Marmaţiei]	8,859,000	98. Mezőtúr	2,777,105
101. Rozsnyó	8,840,000	103. Nagykikinda [Kikinda]	2,409,585
102. Vukovár [Vukovar]	8,800,000	96. Hajdúböszörmény	2,256,317
103. Nagykikinda [Kikinda]	8,760,000	70. Békéscsaba	2,004,037
104. Keszthely4	8,590,000	94. Jászberény	1,967,025
105. Károlyváros [Karlovac]	8,540,000	85. Szentes	1,664,459

* Calculated on the basis of per capita provincial average asset sum (237 crowns).

** Printed in bold: regional banking centre, printed in italic: secondary banking centre.

Source: Own calculation on the basis of the volumes of Hungarian Statistical Bulletin by means of SPSS.

The sequence of the top 16 provincial cities on the hierarchy based on assets is more or less matching with the hierarchy of cities ranked by bank deposits but some cities' positions have changed within this group. Budapest standing on the *top was followed by Zagreb, Nagyszeben [Sibiu], Arad and Temesvár [Timişoara] in the group of regional centres*. There was a strong correlation between their absolute volume of asset stocks and their computed hierarchical level. *On the secondary level of regional centres the sequence of cities was as follows: Nagyvárad [Oradea], Pozsony [Bratislava], Debrecen, Miskolc, and Kolozsvár [Cluj-Napoca]*. With the exception of Debrecen all these centres moved to a better position by 2–3 ranks higher than their absolute assets indices. This shows that these cities were important financial centres and had extensive gravity zones. However Debrecen standing on the 5th position on the ranking of absolute volume of assets – due to its smaller gravity zone and large concentration of population – was only the 7th city on the hierarchy of financial centres. *The hierarchical ranking of the nine regional centres was followed by the group of secondary banking centres, including 22 cities: Szabadka [Subotica], Székesfehérvár, Pécs, Nyíregyháza, Szatmárnémeti [Satu Mare], Szeged, Győr, Szolnok, Kassa [Košice], Szombathely, Kisvárda, Marosvásárhely [Târgu Mureş], Nagykanizsa, Nyitra [Nitra], Túrócszentmárton [Martin], Brassó [Braşov], Susak, Besztercebánya [Banská-Bystrica], Lugos, Újvidék [Novi Sad], Orosháza, Esztergom*. In this group the absolute positions of Szeged, Győr, Szabadka [Subotica], Újvidék [Novi Sad] and especially Brassó [Braşov] were better than their hierarchical positions, while the banking function rankings of the rest of cities were by 5–6 positions above their banking assets ranking.

The geographical distribution of regional centres has changed to some extent. Compared to the hierarchical ranking of cities on deposit volume – due to the larger concentration of banking assets – *the over-representation of East Hungarian centres may be observed* (*Figure 16*). It seems that several cities situated along the market-line of East Hungary are members of the group of regional financial centres but major cities from the group of Transdanubian and West Hungarian centres (Szombathely, Győr and Pécs) left the upper level of financial hierarchy measured by assets allocation. With the exception of Pécs the other two Transdanubian cities' (Győr, Székesfehérvár) positions were worse on the assets based hierarchy than on deposits based ranking.[19]

Expanding the balance sheet of banks with liabilities for maintaining financial balance and ensuring the liquidity of banks the amount of working capital should be increased. This working capital may be increased on assets side by the activities

[19] Secondary financial centres were as follows: Szolnok, Kassa, Szombathely, Kisvárda, Marosvásárhely, Nagybecskerek, Nagykanizsa, Nyitra, Túrócszentmárton, Brassó, Susak, Besztercebánya, Lugos, Újvidék, Orosháza, Esztergom, Zombor, Baja etc.

of several banking lines. They are *bill portfolio, the items of checking account credit, mortgages, municipal credits, loans and interbank credit disposed at other financial institutions and real estate properties*. Due to the variety of assets and the different ratio of components differing by cities and regions we cannot provide a detailed precise analysis of the settlements' role in banking innovation (*Szász,* 1992).

The list of the top 20 cities ranked by *the volume of bank assets* included all the 13 major regional banking centres with the largest significant surplus ratio. Thus, *on the top of list there was some correlation between the quantitative and qualitative values*. However, there is a need to give some kind of explanation regarding to the deviations of the above shown ranking. On the ranking list of the bank assets in year 1909 Budapest and Zagreb were followed by *Nagyszeben [Sibiu]*. This is even if we consider the city's special economic role (capital city of Croatian semi-autonomous territory) in that period, is peculiar phenomena (*Thirring,* 1912). Nagyszeben [Sibiu-Hermanstadt] succeeded Budapest and Zagreb – considering the volume of the banking assets – which is an unusual anomaly in the light of the city's economic importance. The significant part of its assets items concentrated in traditional German minority led banks of Nagyszeben was constituted by the huge goods & chattels and funds – accumulated in debentures (mortgaged for estate properties), which were less liquid and scarcely fulfil the demand of the short-term financing. The majority of banking assets in Nagyszeben [Sibiu] were accumulated in large-sized land properties and mortgage securities (registered for housing). These are rather 'passive' forms of assets doing not too much for facilitating modern commercial banking activities. They were rather serving for the preservation of the banking and fund management traditions of the archaic Saxon plutocracy than increasing the city's economic importance in the modern economy.

Szeged, and Szabadka [Subotica][1], situated in the southern edge of the Great Plain could reach a more distinguished position in the assets concentration than in their hierarchical ranks. This means that on the ranking of banking assets *Szeged* and *Szabadka [Subotica]* – just like the other cities of the Great Plain – had better positions in absolute volumes of stocks than on the hierarchical ranking of banking centres by their deposit surplus ratio This is explained by the extremely high ratio of risky mortgage portfolios – lent primarily for the agricultural sector – serving agrarian interest that can not be regarded the most prudential service activities. This was not useful for commercial-industrial investments the most secure banking business sector at the turn of the 19th and 20th centuries. At the same time the per capita assets ratio was lower because these two cities were the most populated provincial cities in year 1910. However, the increasing volume of banking assets in the 1910s was a real indicator of the dynamic economic development of secondary banking centres in Southern Hungary. (Between 1900 and 1910 they moved forward from the 17th–19th positions to the 9th–10th position in the ranking of banking

assets. However Temesvár [Timişoara] and Arad were still their strong competitors).

Some disharmony between the absolute and hierarchical rankings can be observed at some cities in the Great Plain but it also occurred to some cities performing special economic functions. *Fiume [Rijeka]*, as Hungary's only seaport city, was a very important economic financial centre – at least from quantitative aspects but as due to geographical and public law reasons – it was not an organic part of Hungary's, surrounded by Croatian territory, core regions and even was not surrounded by a hinterland, it always had better positions in county-level rankings than on regional-level ones.

Among the core area's cities of the Great Plain Szolnok (18th position) was the only one among the 20 top cities with the largest volume of banking assets Szeged and Szabadka, the 9th–10th cities on the ranking were in many aspects different from the core area's cities of the Great Plain. Among the cities of minor hierarchical importance *Kecskemét* was on the 25th, *Hódmezővásárhely* was on the 35th, *Cegléd* was on the 36th position on the ranking of cities by banking assets. Thus, the value of absolute indices – showing that these cities were not standing on the top of urban hierarchy – were unable to counterbalance their relatively minor financial importance from the point of both population number and the demands of local economy. At the same time it is also evident that all the above-mentioned cities, concerning the quantitative development of financial services, maintain better positions than on urban hierarchy. Our findings are closely correlating with Pál Beluszky's view stating: 'such *discrepancies were usual for the agricultural market towns of the Great Plain 'capable for development even under the new circumstances'* (*Beluszky*, 1990).

The equity based ranking of cities does not reflect the real turnover of the banking sector. Although these indices are indicating the security of banking business, in other words, the stability of financial institutions, in several cases the amount of *equity* capital at the oldest and the most prudent financial institutions was the lowest compared to the amount of *liabilities*, therefore the increase of *liabilities* is a better indicator of a bank's performance. It would be more suitable to carry out a bill portfolio surplus ratio analysis, as on assets side the importance of billing business sector from the point of liquidity was equally important with savings business on the *liabilities* side. This form of credit was available for all kinds of businesses required short-term credit that was used as working capital. With the extension of its maturity even the loan demands of industrial investors could be financed through the system of of the billing portfolio. On the other hand, 70% of billing credit transactions were realised in provincial credit institutions and this figure is another indicator of the banking centre functions of provincial cities (*Szász*, 1992).

Nearly one-third of banking transactions were *mortgage loans*. A part of them were home loan mortgages, thus this sector was financing not only agricultural credits. However this form of credit business can hardly be used for the analysis of banking functions. The growing proportion of land mortgages was an indicator of an increasing amount of capital invested into agriculture but the type of mortgage had always greater importance than its amount. The charging of land properties by short-term loans (it was quite a usual case) generally was not promoting the modernisation of land as mortgages were used rather for land purchase or debt repayment (*Vargha,* 1913). Credit accommodation for the masses of farmers was not solved even in the 1890s. Even if some efforts were made for the elimination of emerging moneylender's usury (by founding landowners' credit unions) the traditional agro business strategies were insufficient for increasing public trust in local credit institutions in agrarian finance. The sums of mortgage credits were the highest in Central Hungary, Transdanubia and the Banat and the lowest were in Croatia, Transylvania and Upper Hungary. This distribution of mortgages was in close correlation of the development level of agriculture. The sums of mortgage credits were generally high in the cities of agricultural regions (Székesfehérvár, Szeged, Szabadka [Subotica], Arad, Baja, Hódmezővásárhely etc.) while the distribution of household mortgages among cities was more evenly distributed.

Home mortgage sums were the highest in Budapest, Nagyszeben [Sibiu], Pozsony [Bratislava], Sopron, Győr, Nagyvárad [Oradea], Brassó [Braşov], and Kolozsvár [Cluj-Napoca]. All these cities were well-prospering even under the changed circumstances.

As Lajos Rúzsás is pointing out there is a correlation between the quantitative business indicators of urban financial institutions (assets, deposits, gross capital stock) and population data. A more rapid speed of capital growth the speed of local population growth generates accelerated economic development and this will naturally generate a further growth of population. If the pace of capital accumulation is quicker than the growth of the city's population and the line on the chart rises above the number of local population the city's economic development will accelerate. Analysing changes in the volume of bank balances (e.g. assets) in some cities between 1883–1925 it seems that he expansion of banking services in prospering cities was continuous, reaching its peak in year 1913. After the lost World War I and the border changes of Trianon the dynamics of this development gradually slowed down and the volume of the capital assets of financial institutions in several places went below the level of year 1883 (*Rúzsás,* 1965).

Comparing banking hierarchy based on the surplus ratio with *the quantitative indices of financial institutions we can draw the final conclusion that on the top of urban hierarchy* with the exception of a few cases only, *the cities' absolute (stock distribution) and relative financial importance (central-place functions) strongly correlated in the early 20th century*.

5 Outlook

Despite the fact that the contemporary Hungarian banking system is to some extent still lagging behind the most developed western countries, we cannot say that there is a huge inherited gap between Hungary and Western Europe because despite some delay, already at the turn of the 19/20th century, the Hungarian banking system was well developed in comparison to international standards. Hungary's financial sector after 40 years of discontinuity during the Communism was reintegrated into the world's financial system and entered the *stage of "trans-national" and "securitised" financial world.* Were someone to compare the state of contemporary banking system with the banking of the early 20th century, one can find many similarities between them. Both were created following a political change of regime (1867: Austro-Hungarian Union; 1990: the fall of the Communism) and coincided with the early stages of modernisation that were characterised by an original accumulation of capital, by an early foundation of credit institutions, by a mass inflow of foreign capital (although its share was much smaller in 1910), by the foundation of joint-venture banks and by bankruptcies that demanded new legislation on banks and the creation of the public supervision of banking in both eras. The predominant position of Budapest in the money market and in banking is even more predominant as it was 100 years ago (*Gál*, 2000, 2001). Although local unit banks and regional centres were important territorial elements of the financial space in the late 19th early 20th century Hungary, when banks closely connected to regional economic structures, their significance is much less clear in the era of globalisation. A common characteristic regarding the spatial organisation of the Hungarian banking system before and after the political transformation in 1990 has been an extremely high centralisation of headquarters functions in the capital city. The spatial structure of the contemporary banking system is more centralised compared to the network which existed at the turn of the 19/20th century. At that time the number of independent unit banks scattered throughout the countryside were dominant within the banking network. Consequently there were proportionally much less branches before World War I, and only 5.7% of the banking institutions were concentrated in Budapest.

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