

REGIONAL SOCIO-ECONOMIC INEQUALITIES BEFORE AND AFTER THE COLLAPSE OF THE HUNGARIAN KINGDOM – MODERNIZATION, “MAGYARIZATION” AND ECONOMIC EXPLOITATION FROM A DIFFERENT PERSPECTIVE

GÁBOR DEMETER – ZSOLT HORBULÁK

DEMETER, Gábor – HORBULÁK, Zsolt. Regional socio-economic inequalities before and after the collapse of the Hungarian Kingdom – modernization, “Magyarization” and economic exploitation from a different perspective. *Hitorický časopis*, 2021, 69, 5, pp. 889–919.

This article summarizes the results of 5 years of research on the historical peripheries of Hungary between 1910 and 2010. The identification of peripheral zones in Hungary in 1910 – which geographers failed to investigate thoroughly – contributes to the assessment of mistargeted regional development planning policies in the last hundred years. It also triggered debates, because many of the backward areas coincided with regions dominated by ethnic minorities, thus strengthening the opinion of the historians of the successor states that Austria-Hungary had oppressed its national minorities. The first part of the article summarizes the former interpretations of Trianon, misunderstandings emerging from debates between the different national historiographies. The second part deals with the internal debate in Hungary regarding the interpretation of Trianon and its consequences making use of the mapping of inequalities and the implementation of geographical methods in historical research. The third part of the article goes further and, by identifying the changes in regional differences in 1930 and in 2010, evaluates the development policies of the successor states. As the successor states were driven by the same convictions and pursued similar policies toward zones inhabited by minorities as Hungary did, the differences did not disappear. The recent situation shows that there were remarkable shifts in the extension of backward zones and the question naturally arises when this process began. Using the census data of the 1930s we analyse whether some of these changes observable in 2010 can be traced back to WWII, and if yes, whether these were the direct consequences of the new borders drawn in 1920 or, on the contrary, went back to earlier processes under Hungarian rule.

Keywords: Hungary. Successor states. Development trends. Backwardness. Borders. Peripheries. Mapping census data, 1930s, 1910s, 2010s.

DOI: <https://doi.org/10.31577/histcaso.2021.69.5.4>

Introduction and aims

The Hungarian interpretation of the Trianon Peace Treaty usually focuses on a single aspect of the events, namely the emphasis on losses resulting from the Treaty and its emotional connotation for contemporaries and the present.¹ Driven by the traditions of national(ist) history writing, in the reference system in which the nation is the highest category (and not classes, gender, or spatiality etc.) the focus is on the dismemberment of not only the state but also of the body of the nation (considering the nation as an organism), the disconnection of links and networks on a personal (relatives), institutional and infrastructural level. These all necessitated the – at least economically speaking, successful – re-organization of Hungary after 1920, which also implies that the remaining territory was not completely unviable,² a claim often made formerly in Hungarian historiography. The traditional approach often treats the (also nationalistic) historiographers of successor states as opponents to overcome in a debate for final justice (who suffered more, whose situation was worse, who is right, when citing statistics, etc.), or simply neglects them excluding the possibility of a dialogue. Thus, the different national approaches often lead to controversial and unreflected results, which is a general feature in the region.³

In this study we attempt to highlight some of these controversies and challenge some elements of the historical canon in Hungary in connection with the Trianon Peace Treaty. By using a different approach, the perspective of regional statistics, we have tried to look beyond the national history writing, and, at the same time to address the questions raised by the latter, traditional approach. When focusing on the spatial aspects (rather than on social or ethnic problems as historians tend to do), we investigate questions, whether there were any regional disparities in 1910 or not; if yes, what was the character of these and how did the pattern and extent of the inequalities change after the border changes; whether or not the new states were able to eliminate economic inequalities (economic injustice).

-
- 1 For a summary see GYÁNI, Gábor. *Történészdiskurzusok*. [Historians' discourse]. Budapest: L'Harmattan, 2002, 303 p. ISBN 963-945-708-6.
 - 2 TOMKA, Béla. Gazdasági rekonstrukció Magyarországon az első világháború után: régi és új szempontok [The economic reconstruction of Hungary after the First World War: Older and newer views]. In ABLONCZY, Balázs (ed.). *Gróf Bethlen István és kora*. Budapest: Osiris, 2014, p. 75–95. ISBN 978-963-276-240-1.
 - 3 For the first approach see the famous Bičanič-Prica debate between Croatian and Serbian nationalists focusing on the questions which nation's burden was higher in the maintenance of Yugoslavia. BÍRÓ, László. *A jugoszláv állam, 1918–1939* [The Yugoslav State 1918–1939]. Budapest: MTA Történettudományi Intézet, 2010, 336 p. ISBN 978-963-962-730-7. For a more balanced approach illustrating the stance of both parties, see: HOLEC, Roman. *Trianon. Triumf a katastrofa* [Trianon, Triumph and Catastrophe]. Bratislava: Marenčin, 2020, 349. p. ISBN 978-80-569-0588-3.

We also investigate whether the results of modernization were all equally available for all ethnic and religious groups or there was spatial discrimination manifesting in ethnic discrimination too. By abandoning the traditional methods and implementing an interdisciplinary approach based on multivariate statistics and regional science and by placing the character of regional inequalities in focus rather than the state, nation, classes and minorities, we also propose a way for a transnational history-writing. In this way we hope to be able to investigate old questions with new methods, and thus we may be able to transcend the framework of (contradictory) national histories. We do not believe that our approach is better than other points-of-view, we simply claim that events and phenomena need to be investigated from multiple angles to avoid simplistic, one-dimensional answers to questions.

The image of the peace treaty of Trianon in the Slovak historiography

The birth of Czechoslovakia was linked to the dissolution of the Austro-Hungarian Empire and the ratification of the Treaty of Trianon. This international act was perhaps the most important event in Slovak history and, consequently, the number of pieces of research and publications related to this topic is also large, although their character is diverse. The treaty is not only discussed in monographs,⁴ in scientific articles,⁵ but is a central topic also in books that summarize the history of Slovakia.⁶ A work co-authored by Slovak and Hungarian historians has been

-
- 4 HRONSKÝ, Marian. *Boj o Slovensko a Trianon 1918–1920*. Bratislava: Národné literárne centrum, 1998, 327 p. ISBN 80-88878-14-4, English version: *The Struggle for Slovakia and the Treaty of Trianon 1918–1920*. Bratislava: VEDA, 2001, 408 p. ISBN 80-224-0677-5.
 - 5 HOLEC, Roman. *Trianon ako plač nad rozliatym mliekom a Uhorsko ako obeť vojny* [Trianon as crying over spilt milk and the Kingdom of Hungary as a victim of the war]. In DEJMEK, Jindřich et al. *Zrod nové Evropy*. Praha: Historický ústav AV ČR, 2011, p. 89–112. ISBN 978-80-7286-188-0; ŠUTAJ, Štefan. *Trianon a szlovákiai történelmi emlékezetben* [Trianon in Slovak historical memory]. In *Limes*, 2011, vol. 24, no. 11, p. 71–85. ISSN 0238-9266; KUSÁ, Dagmar – MICHELA, Miroslav. *A kulturális trauma diskurzusa. Trianon és a szlovák-magyar kapcsolatok reprezentációi* [The discourse of cultural trauma – The representation of Trianon and Slovak – Hungarian relations]. In *Limes*, 2011, vol. 24, no. 11, p. 53–69. ISSN 0238-9266; KLIMKO, Jozef. *Trianon – trvalá trauma slovensko-maďarských vzťahov?* [Trianon – a permanent trauma in Slovak – Hungarian relations?]. In KLIMKO, Jozef et al. *Mierové zmluvy v kontexte geopolitiky 20. a 21. storočia*. Bratislava: Paneurópska vysoká škola a Historický ústav SAV, 2013, p. 75–81. ISBN 978-80-970913-2-3; HRONSKÝ, Marián. *Rozpad Uhorska, Trianon a počiatky maďarského revizionizmu* [The break up of the Kingdom of Hungary, Trianon and the beginnings of Hungarian revisionism]. In KLIMKO et al., *Mierové zmluvy v kontexte geopolitiky 20. a 21. storočia*, p. 58–74.
 - 6 HAPÁK, Pavel (ed.). *Dejiny Slovenska IV, od konca 19. storočia do roku 1918* [History of Slovakia IV, from the end of the 19th century to 1918]. Bratislava: Veda, 1986, 535 p.; KROPILÁK, Miroslav (ed.). *Dejiny Slovenska V, 1918–1945*. Bratislava: Veda, 1985, 607 p.; KOVÁČ, Dušan. *Dejiny Slovenska*. Praha: Nakladatelství Lidové noviny, 1998, 401 p. ISBN

published on this topic recently,⁷ giving an opportunity to Slovak readers to familiarize themselves with the Hungarian standpoint directly.⁸ In addition, scientific publications have appeared which do not analyse the event itself but rather the image of Trianon on the Hungarian side.⁹ Certain studies do not assess only the treaty itself but also the path which had led to it, the situation of the Slovak and other ethnicities in the Kingdom of Hungary, and the ethnic policy of the kingdom.

These analyses treat the topic investigated in the following way. The academic *History of Slovakia*¹⁰ perceives the birth of the new state definitely positively, because after 1920, opportunities arose for the development of modern culture in Slovakia. The state administration and the education system ceased to be the tools of nationalization and, for the first time in history, an intelligentsia began to rise that was Slovak in sentiment. The entire society set off on the road of democratization but, due to the bourgeois centralist arrangement of the state, Slovak economic and cultural backwardness lingered on. However, the book contains a critical observation: “*The effect of a prolonged, fictional Czechoslovak national unity and centralist politics gave rise to an autonomist movement which strengthened the ideal and political polarization of Slovak society.*”¹¹

An independent and modern history of Slovakia was written by Dušan Kováč.¹² He pointed out that the Slovaks joined the Czech-Slovak state spontaneously. The centralist liberal principle did not support the more backward Slovakia (economically), although wide-ranging cultural development began. The Peace Treaty of Trianon of 4 June 1920 took into account ethnic, strategic and economic aspects, and “*created a border which is basically valid even today*”¹³.

Milan Stanislav Ďurica belongs to a group of nationally committed historians. Ďurica’s image of Czechoslovakia also differs from that of the books mentioned

80-7106-268-5; ĎURICA, Milan Stanislav. *Dejiny Slovenska a Slovákov* [History of Slovakia and the Slovaks]. Bratislava: Media trade – SPN, 2003, 274 p. ISBN 80-08-01427-X.

7 MICHELA, Miroslav – VÖRÖS, László. *Rozpad Uhorska a trianonská mierová zmluva. K politikám pamäti na Slovensku a v Maďarsku* [The break up of the Kingdom of Hungary and the Treaty of Trianon. On the politics of memory in Slovakia and Hungary]. Bratislava: Historický ústav SAV, 2013, 336 p. ISBN:978-80-89396-24-5.

8 ROMSICS, Ignác. *Trianonská mierová zmluva* [The Peace Treaty of Trianon]. Bratislava: Kalligram, 2009, 240 p. ISBN 978-80 8101-237-2.

9 HOLEC, Roman. *Trianoni rituálék, avagy gondolatok a magyar historiográfia egyes jelenségeiről* [Trianon rituals or ideas concerning some phenomena in Hungarian historiography]. In *Fórum Társadalomtudományi Szemle*, 2011, vol. 13, no. 4, p. 109–132. ISSN 1335-4361.

10 HAPÁK and KROPILÁK, ref. 6.

11 KROPILÁK, ref. 6, p. 345.

12 KOVÁČ, ref. 6.

13 KOVÁČ, ref. 6, p. 185.

above. He, among others, emphasized the unappeased Slovak demand for autonomy and wrote about the despotism of the Czech officials, Czech atheism, and the Czech government using colonial methods in Slovakia.

Marian Hronský's monograph¹⁴ deals exclusively with the events of 1918 to 1920. Already in the introduction, he states: even in today's Hungarian historiographic works, it is a frequent opinion that *Hungary has been unjustly mistreated. "On the contrary, Trianon is the consequence of the purposeful denationalizing policy of the Hungarian governments during the era of dualism, which led not only to the national liberation struggles of the oppressed nations and ethnicities of this semifeudal and antidemocratic state, but also to the disintegration of the entire Hungary."*¹⁵

In Hronský's work it is interesting how he summarizes the arguments of the Czechoslovak delegation at the peace negotiations. The starting point was that Slovakia was an integral part of Czechoslovakia; the *historical Hungarian border* in the north had to be retained, and this historical argumentation was mixed with the *natural right to self-determination by geographical, ethnic, transportation and strategic demands* in the south. The following goals had to be achieved:

1. To let the Hungarians, especially those living in urban centres due to aggressive Hungarianization, be absorbed by the Slovak environment;
2. When occupying certain areas with a Hungarian majority, the delegation had to argue that the same number of Slovaks remained in Hungary;
3. To emphasize that the demanded area form a geographical region;
4. Czech-Slovakia would be a democratic state, ensuring the ethnic rights of Hungarians and Germans.

On the other hand, the Hungarians drew up three hundred and forty-six drafts on four thousand pages with a hundred maps. The contents of these documents contradicted reality in several instances. The content of the Hungarian memorandums can be summarized in four points:

1. retention of complete integrity;
2. referendum in the regions to be detached;
3. modification of the borders without a referendum;
4. cultural, economic and transport concessions in the regions to be detached. As Hronsky wrote, the Hungarian arguments were based on the thousand-year-long historical-cultural tradition. However, the Hungarian materials kept quiet about one important fact, which figured among the accusations of the Entente as well: the Hungarians' role in the outbreak of the war. The decision about the borderlines was based on the principle

14 HRONSKÝ, ref. 4.

15 HRONSKÝ, ref. 4, p. 8.

of balance: the same number of Slovaks should remain in Hungarian territory as the number of Hungarians in the Slovak one; the border was determined and supported not exclusively by ethnic and geographical, but also by economic, natural, legal, historical, transport and other geopolitical arguments.

As pointed out above, Slovak and Hungarian historiography convey fundamentally different images of the Treaty of Trianon. Michela and Vörös's work, compiled from the opinions of ten Slovak and Hungarian, and one French author, tries to give an idea of these approaches.¹⁶ Primarily, it tried to examine how the Hungarians and the Slovaks recalled Trianon in the past and how they recall it today. The book has an interdisciplinary approach, and its main aim is to present the standpoints, as well as the grievances, of both sides.

Trianon became increasingly interesting for Slovak historians again at the 100th anniversary of the treaty.¹⁷ Historians now treat the events with more empathy, taking the Hungarian standpoint into consideration, relying not only on contemporary, but also on the recent Hungarian literature.¹⁸

The Slovak viewpoint can be summarized as follows: the disintegration of multiethnic historical Hungary was a historical necessity, and the creation of a new state was a positive act. When justifying separation, practically all literature points to national oppression and the nation's right to self-determination. Even Hungarian historians admit that national oppression was a reality at the turn of the century.

Slovak historiography and public opinion do not connect the formation of the borders to the time of signing the Treaty of Trianon but regard them as fixed entities generally from about November 1918. Since the acquisition of the region and the transfer of state administration took months, this period is illustrated as the beginning of fights against Hungarian irredentism. While the Hungarian public is of the opinion that, before signing the peace treaty on 4 June 1920, a better borderline could have been achieved by employing military force or more tactful diplomacy.

The Slovak party regards the border not only as a given fact, but as a border beyond dispute, and the best possible one. However, it admits that not only ethnic, but also strategic, economic and transport purposes played a role in their determination. Czechoslovak propaganda, just like the Hungarian, tried to win

16 MICHELA – VÖRÖS, ref. 7.

17 HOLEC, ref. 3; FICERI, Ondrej. *Potrianonské Košice* [Košice after Trianon]. Bratislava: VEDA, 2019, 336 p. ISBN 978-80-224-1737-2.

18 HOLEC, ref. 3.

over the politicians of the Entente countries, and the public opinion therein, for their cause. However, while Slovak historiography has condemned the Hungarian efforts, it has supported the identical Czechoslovak ones.

Finally, the comparison of the economic possibilities of the successor states also differs. While the Hungarian side focuses on the losses of raw materials and centres of production, the Slovak side regrets losing the receiving markets of Czech industry.

Debates around the Hungarian national canon – regional development in 1910 from a new perspective

This article is product of a debate that began in the commemoration year of the Trianon Peace Treaty. A map has recently been published in Balázs Ablonczy's latest work,¹⁹ illustrating the remarkable territorial inequalities in historical Hungary before WWI (in 1910, Fig. 1), which were well-known earlier from sporadic data, but the picture was shocking, because the concept was confirmed by official statistical data and a systematic investigation. Previously, regional development patterns of the dualistic period (especially of the peripheries) were not in the focus of historiography with the exception of a few recent studies.²⁰ Most of the studies focused on the quick pace of development (in prosperous and crisis periods) rather than on the regional differences, which could be observed in spatial patterns. Our map stresses the unbalanced, uneven character of development and thus it led to debates, because it implicitly claimed that most of the lost territories were underdeveloped (with the exception of Vojvodina), although this was not a brand new idea.²¹ This observation also implied that the remainder of Hungary was not in such a critical situation after 1920 as was previously supposed, because the country retained its most developed territories. Despite the general connection between the rate of industrialization and the level of development (Table 1) the picture also questioned the omnipotence

19 ABLONCZY, Balázs. *Ismeretlen Trianon – Az összeomlás és a békeszerződés története 1918–1921* [Unknown Trianon – Collapse and the Peace Treaty 1918–1921]. Budapest: Jaffa Kiadó, 2020, p. 213–215. ISBN 978-963-4752-882.

20 BALATON, Petra. The Székely Action (1902–1914). The Example of Regional Economic Development in the Austro-Hungarian Monarchy. In *Ungarn Jahrbuch, Zeitschrift für Interdisziplinäre Hungarologie*, 2016–17, vol. 33, p. 223–236. ISBN 978-379-1771-823; BALATON, Petra. Regionális gazdaságfejlesztés – a felvidéki akció. A Földművelésügyi Minisztérium zsolnai kirendeltsége (1908–1919) [Regional economic development in the Highlands. The Office of the Ministry of Agriculture in Žilina, 1908–1919]. In HORVÁTH, Gergely Krisztián – CSIKÓS, Gábor – HEGEDŰS, István – KOVÁCS, József Ö. (eds.). *Vidéktörténet II. Életilágok és társadalmi gyakorlatok a 18–20. században*. Budapest: MTA BTK, 2017, p. 157–187. ISBN 978-963-416-048-9.

21 See: GYÁNI, G. ref. 1. His opinion was criticized by the daily press in 2020.

of industrialization – the results underlined the decline of traditional industrial centres in today’s central Slovakia. Other maps suggested that industrialization had been incapable of exerting a favourable impact on the larger surroundings of centres prior to 1910 and also that some of the prosperous industrial regions were in the influence zone of Vienna, and therefore structurally they belonged to Austria rather than to Hungary.

These all suggested that historic Hungary was a bad manager of these backward territories, most of which were dominated by national minorities. This allegation appears to confirm the statements of the historians of the successor states.²² Furthermore, the author’s conclusion, that “*the borders drawn at Trianon had already existed in 1910 in a socio-economic sense*”²³ triggered another debate during the conference organized at the Central Statistical Bureau of Hungary.²⁴ Some misunderstood or misinterpreted the author’s statement, and warned that decision-makers in Versailles did not have in mind to draw boundaries based on differences in development.²⁵ But neither did we intend to claim this: what we wished to draw attention to was the fact that the coincidence of economically

-
- 22 This also implies that the remainder area of Hungary was not the most underdeveloped, economically unviable region, and this also explains why the restoration of both the economy and general living standards (HDI) was quicker than expected. See: SZILÁGYI, Zsolt. Az életminőség területi különbségeinek változása Magyarországon a 20. század első harmadában [Research on spatial changes in the quality of life in Hungary in the first third of the 20th century]. In DEMETER, Gábor – SZULOVSKY, János (eds.). *Területi egyenlőtlenségek nyomában a történeti Magyarországon: Módszerek és megközelítések*. Budapest; Debrecen: MTA BTK, 2018, p. 255–334. ISBN 978-963-416-132-5 and TOMKA, Béla. The economic consequences of World War I and the Treaty of Trianon for Hungary. In *Regional Statistics*, 2020, vol. 10, no. 1, p. 82–101. ISSN 2063-9538; TOMKA, Béla. A Trianon-traumától a sikeres alkalmazkodásig. Új hangsúlyok az 1920-as évek magyar gazdaságának vizsgálatában. [From the Trianon trauma to successful adaptation. New accents in research on the Hungarian economy in the 1920s]. In *Kommentár*, 2013, vol. 10, no. 5, 25–35. ISSN 1787-6974.
- 23 DEMETER, Gábor. Történeti kérdések földrajzi szemszögből: mi az, amit másképp lát egy földrajzos? A Trianonhoz vezető út regionális aspektusai [Historical questions from the geographical point of view: Does a geographer see things differently? The regional aspects that led to Trianon]. In *Történeti Földrajzi Közlemények*, 2017, vol. 5, no. 3-4, p. 22–36. ISSN 2064-390X esp. p. 30. cited also by KINCSES, Áron – TÓTH, Géza. Magyarország térszerkezetének változásai 1870-től napjainkig [Research on the spatial structure of Hungary from 1870 to the present-day]. In *Statisztikai Szemle*, 2020, vol. 98, no. 6, p. 522–546. ISSN 0039-0690.
- 24 Conference material was published in *Regional Statistics*, 2020, vol. 10, no. 1. ISSN 2063-9538.
- 25 GULYÁS, László. Trianon hatása a Kárpát-medence régióinak fejlődésére [The influence of Trianon on regional development in the Carpathian Basin]. In *Közép-Európai Közlemények*, 2010, vol. 3, no. 4, p. 140–147. ISSN 2676-878X (online); The debate is also mentioned at KINCSES – TÓTH, ref. 23, p. 524.

peripheral areas with territories inhabited dominantly by ethnic minorities just aggravated the situation further due to the synergic effects, while a territorially more evenly balanced development would have done just the opposite: it could have mitigated existing (social, ethnic, etc.) tensions. In other words, we claimed that internal policies created similar fault lines that were created later under external pressure, so Hungary's fate was the joint result of external (thus "uncontrollable") impacts, and internal policies.

When the representatives and historians of minority groups recognized that regions dominated by ethnic Hungarians were more prosperous (and the picture on Fig 1. suggests just this), they were led to the conviction that modernization went hand in hand with "Magyarization". Data in Table 1 also suggests that the higher the proportion of Hungarian-speaking population, the more developed the region is. However, in the case of other distinctive features, like religion, the situation is not so evident. The proportion of Catholics and Protestants seems to have nothing to do with development levels, while the proportion of Orthodox is a good indicator of underdevelopment, and indirectly it also refers to ethnic minorities (Serbs, Romanians). Another map illustrating the spread of the knowledge of Hungarian language among ethnic minorities²⁶ (especially among Slovaks, Germans and Jews) also suggests that modernization was closely connected with "Magyarization" (see Gemer region, Figure 12.). This "by-product" of state modernization often led to anti-modernist sentiments among national minorities. However, nationalism was also considered a key driving factor of increasing economic performance of the state at the time, a fact even acknowledged by Gellner.²⁷ In our opinion, this polarized economic situation in Hungary should have been coped with in the long run: even if the war had not been lost, polarization still would have been a strong destabilizing factor for the country in the next decades besides the unresolved suffrage question, land question and minority question. It is not surprising that István Tisza wanted to avoid war, since the Hungarian elite was as much aware of the internal structural weaknesses of the country, as they knew that modernization influences the speed of "Magyarization". The elite therefore wanted to avoid showdown and giving any concessions to the minorities in the subsequent 30 years, because statistical calculations prognosticated that the proportion of ethnic Hungarians would

26 DEMETER, Gábor (ed.) at al. *A Historical Geographical Atlas of Hungary for the Analysis of Socio-Economic Phenomena (1869–1910)*. Budapest: Bölcsészettudományi Kutatóközpont, 2020. 330 p. ISBN 978-615-00-0819-6, Chapter 3, map 25, p. 96. The difference between population able to speak Hungarian (%) and population with Hungarian mother tongue (%) in 1910.

27 GELLNER, Ernest. *Nations and Nationalism*. Ithaca: Cornell University Press, 1983, 150 p. ISBN 080-141-662-0.

reach 62% by 1940, and the number of those able to speak Hungarian would then exceed 75% (Table 2).

In other words, beyond social problems, regional problems were also abundant in dualist Hungary. Can the factors responsible for this poor picture be identified? Was this situation a result of intentional interference or of neglect? And who bears the responsibility for this?

Table 1:
Relationship among development level, ethnicity, and religion²⁸

Development deciles	Industrial earners % (Regional Development Index of : Péntzes, 2014)	Proportion of population able to speak Hungarian, % Győri-method (2006)	Proportion of Roman Catholics, % RDI	Proportion of Protestants, % RDI	Proportion of Greek Catholics and Orthodox, % RDI
Lowest	5.8	3.3	51	8.1	34.9
2.	6.4	9.2	48	13.1	31.7
3.	7	24.2	51.9	12.6	28.7
...
8.	12.5	65.0	45.7	15.6	26.2
9.	16.5	67.3	47	16.5	21.1
Highest	34.7	66.9	54.9	13.4	11.2
Total	17.3	54.6	49.2	14.3	23.8

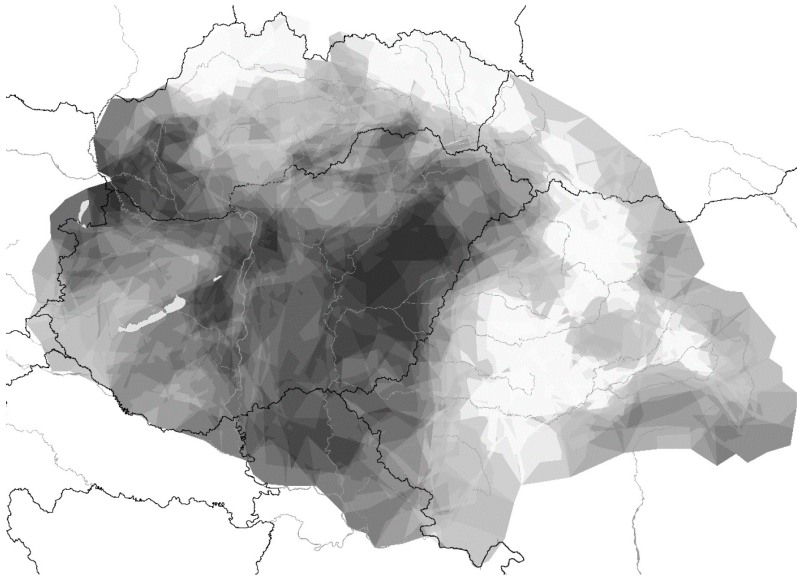
According to the regional statistical literature, territorial inequalities generated by government policies were natural consequences of the liberal economic policies²⁹ – pursued not only in Hungary but elsewhere as well at the turn of the 20th c. This policy rendered the peripheries as suppliers of raw material and workforce in this kind of national division of labour and in return they received

28 Data and table from: PÉNTZES, János. Fejlettségi különbségek és centrum-periféria viszonyok a történelmi Magyarországon. Összehasonlító módszertani vizsgálat [Differences in the development of the centre and periphery in historic Hungary. General methodological research]. In DEMETER – SZULOVSKY, ref. 22.

29 BALATON Petra (2010, 2016) considers the evolution of peripheries in Hungary as the direct result of government policy. This conviction was rare among Hungarian historians before 1945. According to the theory of ‘unbalanced growth’, industrialization as a strategy to diminish territorial gaps, had evident limits. HIRSCHMAN, Albert O. *The strategy of economic development*. New Haven, CT: Yale University Press, 1958, 217 p. ISBN 10: 0300001177,

processed material. This led to a shortage of capital or decrease in purchasing power, and also to constant migration towards the developing centres (and abroad), where assimilation processes (either intentional or not) often took place more effectively. The question is, who is to blame for the economic polarization that indirectly stressed ethnic differences too?

Figure 1:
Regional disparities of aggregated development level in Hungary in 1910.³⁰
Darker colours indicate higher level of development



The Williamson hypothesis emphasizes that at “*the beginning of the capitalist transformation, inequalities would naturally increase not only in social but also in spatial terms, regardless of the economic policies pursued*”.³¹ Does this mean that practically no one is to blame for the economic division of the country? Hungarian scholars did accuse the Habsburgs of introducing an economic policy with the same result, when they created the internal customs boundary in 1754, rendering Hungary into a producer of raw materials and products of low added value.

30 For the variables used see Table 3, right column. The map was published in ABLONCZY, ref. 19, p. 214–215.

31 WILLIAMSON, G. Jeffrey. Regional inequality and the process of national development: a description of the patterns. In *Economic Development and Cultural Change*, 1965, vol. 13, no. 4, p. 3–84. ISSN 0013-0079.

Table 2:

The number and proportion of Hungarians and Hungarian-speakers measured against the total population with a prognosis to 1940 assuming similar processes as in 1880–1910 (in prs and %)

	1880	1910	1940**
All inhabitants	13.5	18 (+33%)	24
With Hungarian mother tongue	6.6	9.9 (+50%)	15
Inhabitants able to speak Hungarian	8*	12 (+50%)	18
Ethnic Hungarians, %	49	55	62,5
Hungarian speakers, %	55	66	75

*Estimated value, not measured in 1880 – calculated from the 1900 and 1910 data.

** Calculated from the rates between 1880 and 1910.

While we do not want to analyse the relevance of these accusations, if the Hungarian scholars' opinion on this topic was worth discussing in scientific literature, it must be evident that similar allegations of the Slovakian historians regarding their nations' economic position in Greater Hungary should not be refused *ab ovo*. In the 18th century Upper Hungary was the most developed region, while the Great Plains region devastated by the Ottomans was in fact a "frontier". When such a formerly prosperous region becomes an economic periphery by the beginning of the 20th century without any official establishment of similar barriers as it happened in 1754, the question naturally arises: why could this happen, and who is responsible? The Williamson hypothesis does not provide sufficient answers to the question, but another theory, the Tobler hypothesis may give an explanation. It says that "*neighbouring territorial entities normally have (should have) similar features, so instead of sudden fractures and "fault lines", a gradual transition, a gentle sloping development level should be observed*".³² However, this was not the case in Hungary in several regions: *there was a sudden drop along the transversal railway Bratislava–Levice–Košice–Užhorod–Carei–Satu Mare–Oradea–Arad* in present day Slovakia (in the north and the east along the present Romanian border. These fault lines, therefore, as shown in Figure 1, almost coincide with future borders. Implicitly this also means that Hungarian governments during the dualistic period (1867–1918) are indeed responsible for the territorial inequalities and the synergic effect it had caused in connection with

32 TOBLER, W. Rudolph. A Computer Model Simulating Urban Growth in the Detroit Region. In *Economic Geography*, 1970, vol. 46, no. 3, p. 234–240. ISSN 0013-0095.

the minority question. The government had not always been negligent towards the problems, but its interference was only able to increase tensions and the suspicion of ethnic minorities that there is a firm distinction between primary and secondary citizens: the (unintentional) failure of the Ruthenian Action and the moderate success of the Székely Action suggested that the government clearly had preference for borderlands inhabited by ethnic Hungarians³³ over territories inhabited by Slavs and Romanians. The accelerated development of Budapest, the city envisioned as the future imperial centre, had its high price.

Table 3:

Indicators used in different investigations to delimit cores and peripheries³⁴

Szilágyi, Zsolt (5)	Pénzes, János (6)	Demeter, Gábor (27, then 12) see: Fig. 1.
Literacy rate above 6 years, 1910		Literacy rate, 1910
Deaths receiving medical treatment (%)		Deaths receiving medical treatment, %
Houses of good quality (%), 1910		Houses of poor quality, 1910, %
Migration rate, 1901–1909		Migration rate, 1901–1909
Earners in industry and tertiary (%), 1910	Industrial earners, %	Industrial earners, %
		Tertiary earners, %
	Infant mortality	Death rate or infant mortality
	Earner/non-earner ratio	Earner/non-earner ratio
	Cadastral net income per inhabitant	Cadastral net income per inhabitant
		Direct state burden per capita, 1909
Traditional method: Győri, R. – Mikle, Gy.	Direct state burden per capita, 1909	Net income of settlements per capita
	Net income of settlements per capita	Agrarian transports, t / 1000 prs
		Distance from railway, m, 1890
		Smallholders compelled to search for daily wage labour %, 1910
	derived from the variables by PCA	Overlay of single maps, aggregation

The investigation of the 1910 situation was repeated several times using different methods³⁵ and all seemed to highlight the fact that in 1910 the area

33 BALATON, The Székely Action, ref. 20 and BRAUN, László. *A hegyvidéki akció története 1897–1910 között* [A history of the Highlands policy, 1897–1910]. Debrecen 2017 (unpublished PhD dissertation, University of Debrecen).

34 MYRDAL, Gunnar. *Economic theory and underdeveloped regions*. New York: Gerald Duckworth & Co., 1963, 163 p., proved that the analysis of development could not be based on solely economic variables. For the variables used, see project GISa Hungarorum – <http://www.gistory.hu/g/en/gistory/otka>

35 SZILÁGYI, Zsolt. A Kárpát-medence fejlettségi membránja (1910). A fogalomalkotás és a vizualizálás egy lehetséges módszertani megoldása, az eredmények kontextualizálási kísérlete [Developmental boundaries in the Carpathian Basin (1910). A possible methodological

of the country was not only characterized by serious regional disparities, but, more importantly, the delimitation of zones characterized by backwardness was also unwavering regardless of the methods and variables involved in the investigations (Table 3). This means that the location of peripheries seems to be unquestionable (only the gap between developed and backward regions can be disputed) in 1910. The most developed regions were: southwestern Slovakia along the Danube from Bratislava to Budapest (including the agrarian zone supplying Vienna, Bratislava and Budapest and the regions with good railway connections to export sugar beet from the 1860s); the urban zone along the transversal railway (Nové Zámky – Košice), the Debrecen area along the Tisza, Vojvodina, and the zone south and southeast of Budapest. Some of the backward areas of present-day Hungary (the internal periphery along the Tisza, Somogy in southern Transdanubia and the Cserehát in Northeast-Hungary) did not exist in 1910, while some underdeveloped zones in 1910 (Zala) managed to close the gap. It is an interesting question how the situation changed in the backward regions of the successor states, because this could also give a retrospective legitimation to the events in 1920. If there were great inequalities that decreased over time, it would lend another good justification for Trianon. However, if the differences remained unchanged up to 2010 or simply the pattern changed only, while the differences remained, it would mean that the government policies of the successor states did not handle the situation any better (from the aspect of inequalities) than in the historical Hungarian Kingdom. Therefore, we intended to trace the changes up to 2010.

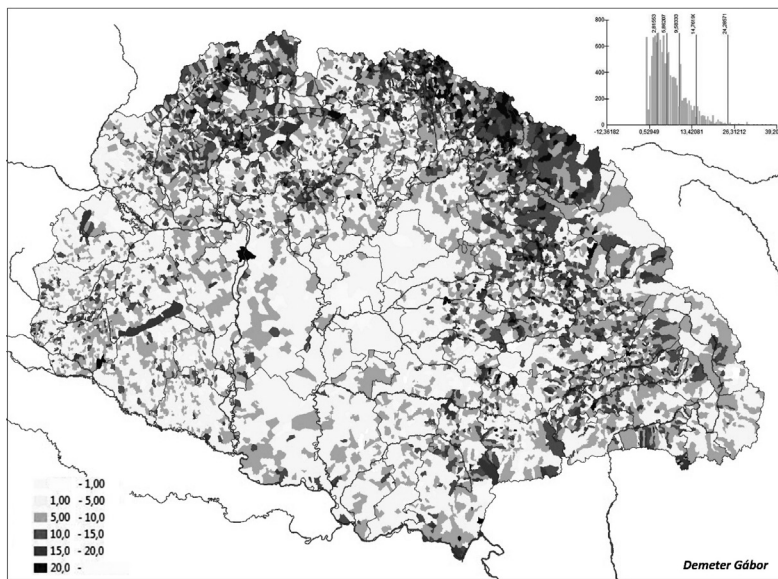
Before doing so, two other aspects of development need to be analysed. The first one is the difference between the state of development (the actual level, indicating a static picture) and the dynamism of development.³⁶ This means

solution to the shaping of concepts and visualization, an attempt at contextualization of the results]. In DEMETER – SZULOVSKY (eds.) ref. 22, p. 47–85; and GYÖRI, Róbert – MIKLE, György. A fejlettség területi különbségeinek változása Magyarországon, 1910–2011 [Change in Spatial Developmental Differences in Hungary, 1910–2011]. In *Tér és társadalom*, 2017, vol. 31, no. 3, p. 144–164. ISSN 0237-7683; PÉNZES, ref. 28. He searched for independent variables among the set of variables, at the same time he wanted to fit his research to the modern methods used to indicate territorial inequalities, that way making the results for 1910 comparable to those for 2010. However, this meant that numerous variables were dropped, because PCA requires normal distribution for data. The method of Demeter (map overlays of single indicators) was to balance this disadvantage, but it meant that not only independent variables were involved in the investigation, but also those that showed great correlation with each other.

36 The following 5 variables were available for dynamic investigations: the increase in literacy rate (1880–1910), increase in railway accessibility (1890–1910), improvement in proportion of industrial employees (1900–1910), change in number of smallholders compelled to do daily wage labour (1900–1910), change in net land income per capita (1895–1910).

that there were developed, but decelerating areas like the land of the Saxons in Transylvania, and underdeveloped, but accelerating regions as well (Heves-Nógrád counties or the Land of the Székelys with its special funds allocated to promote its development etc.). Developed regions showing great dynamism (Vojvodina, Banat) were in the most favourable situation, while decelerating and backward areas (North-eastern Slovakia, Western Transylvania) had no prospect whatsoever, without a complete restructuring.³⁷

Figure 2:
The total share of measles, scarlet fever, and whooping cough in total deaths (%
1901–1910, yearly average)

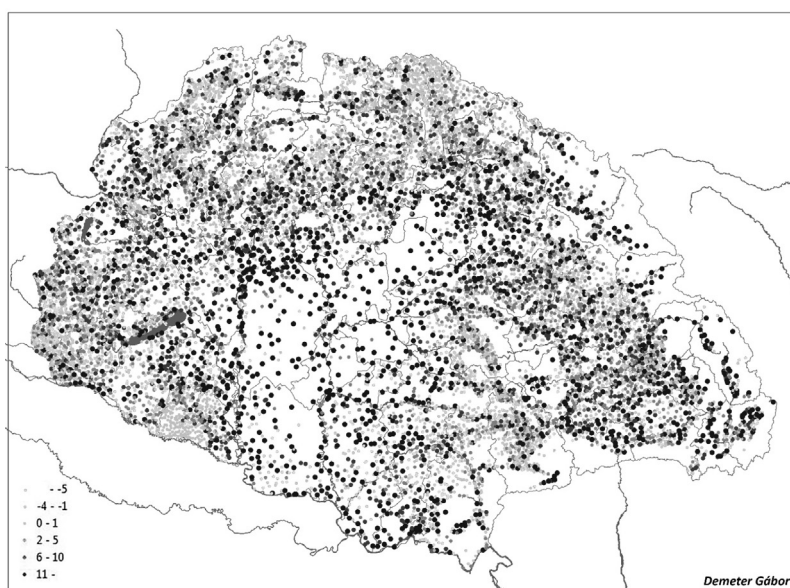


The second characteristic worth examining is the pattern of single variables, which the complex map was based on. The picture seen on Figure 1 is similar if we break down this complex map to its constituents. Health conditions showed a similar pattern (Figure 2): traditional causes of death were overrepresented in Slovakia, Transcarpathia, Transylvania, while tuberculosis was overrepresented in the Great Plains. The proportion of the people who had received medical care before they died showed a similar pattern – the Great Plains were in a more

37 See map 3 in DEMETER, Gábor. Trends in regional inequalities between 1910 and 1930 in Hungary and the successor states. In *Wschodnioznawstwo*, 2020, vol. 14, p. 95–115. ISSN 2082-7695.

favourable position, while in this aspect the mountainous zones were more backward. The pattern of industrial development also fits the scheme (Figure 3): despite the fact that 40% of all industrial investments were allocated to Slovak territories in 1910, many smaller firms, albeit territorially evenly scattered, were closed down in Slovakia between 1900 and 1910, while new establishments were located along the ethnic contact zone, showcasing a territorial concentration of industry).

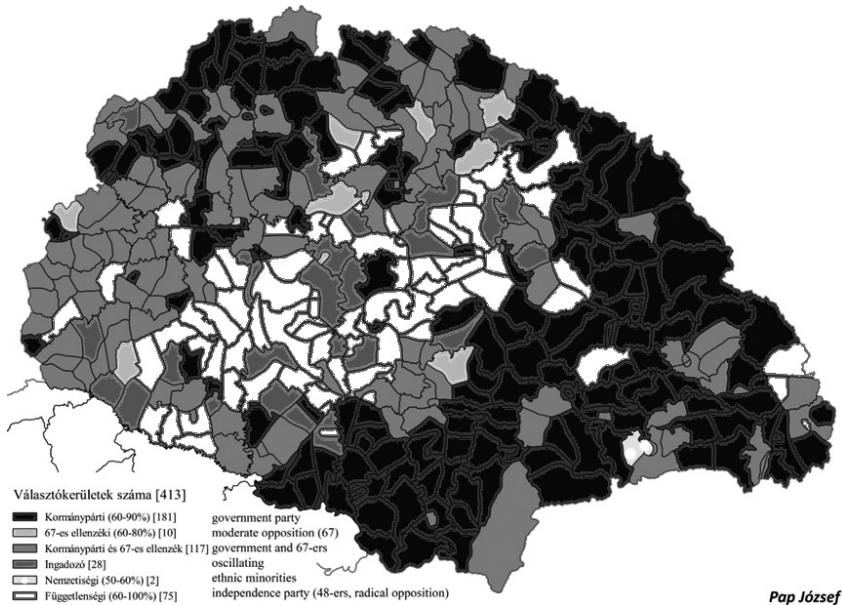
Figure 3:
The change in the number of industrial firms at the settlement level (including small-scale industry with one worker) between 1900 and 1910



Political behaviour (Figure 4) also showed this bimodality: if we compare ethnicity, religion and development, it was the governing party of Kálmán and István Tisza that usually won the elections in the peripheries including Upper Hungary, where non-ethnic Hungarian citizens were the majority, and it usually lost the polls in Calvinist regions, where the Independence Party won and in many other regions with an ethnic Hungarian majority. Paradoxically, the regions that benefited the most from the situation opposed the maintenance of the system, while those areas that benefited the least were the basis of the maintenance of the dualistic system. The election system also showed similar patterns: in western Upper Hungary, in Transcarpathia and in Transylvania the electoral census – based on land incomes (Figure 5). – was relatively high compared to

the electoral census in Central Hungary,³⁸ and thus voters of the minorities were underrepresented in those regions.

Figure 4:
The spatial pattern of winners (parties) in electoral districts (1878–1910)³⁹



Even the tax burdens showed a similar bimodality (Figure 6). But using only the single variable of the direct tax burden per capita, one may come to the conclusion that the geographical peripheries (inhabited by ethnic minorities) were not overburdened in comparison with the central region. This confirms the Hungarian historians' view (namely that liberalism secured the same individual, but not collective, rights to everyone regardless of ethnicity and religion, thus there was no negative discrimination against minorities).⁴⁰ However, burdens

38 High values were also abundant in some counties dominated by large estates (Tolna, Baranya, Somogy), which means that fewer peasants could participate in elections, than in other districts.

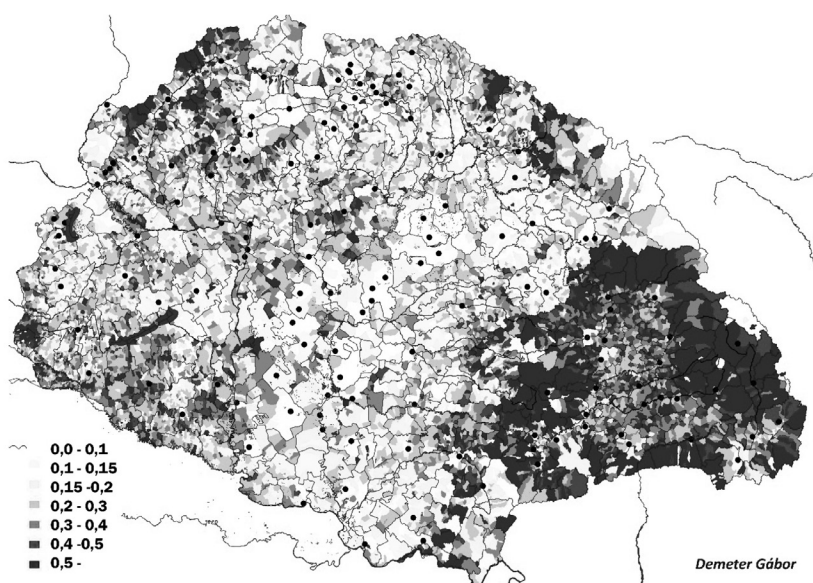
39 PAP, József. *Tanulmányok a dualizmus kori magyar parlamentarizmus történetéből* [Studies on the history of Hungarian parliamentarism in the period of dualism]. Budapest; Eger: Akadémiai Kiadó, 2014, 368 p. ISBN 978-963-0595-100.

40 For a brief modern summary on the views of contemporary politicians see KATUS, László. *A modern Magyarország születése. Magyarország története 1711–1914* [The birth of modern Hungary. A history of Hungary 1711–1914]. Pécs: Kronosz, 2012, p. 582–588, citing Béla Grünwald, Gusztáv Beksics, Lajos Moesáry for the 19th century.

should be measured against incomes, and in this very case, eastern Slovakia, Transcarpathia and western Transylvania were characterized by lower incomes thus were relatively overburdened (Figure 7). This outcome confirms the view of the Slovak and Romanian historians. This illustrates well, how arbitrarily selected variables may influence the results and the interpretation of events.

Figure 5:

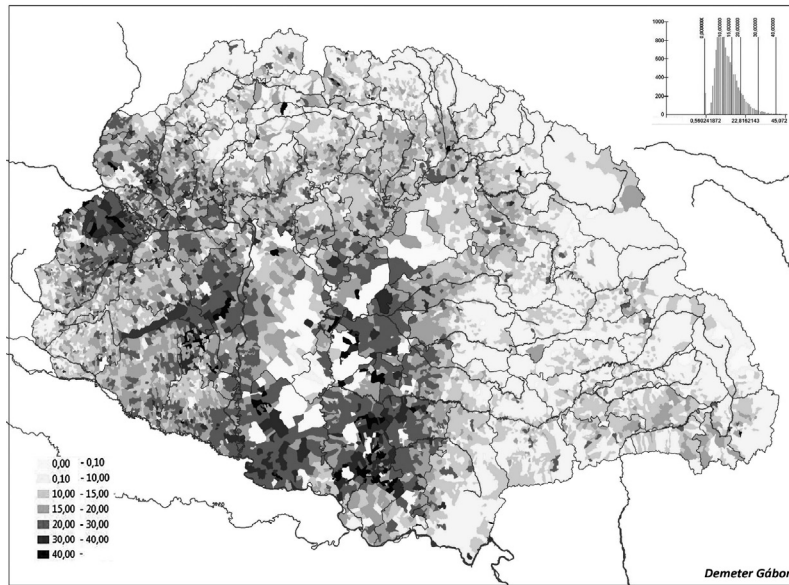
The value of electoral census (based on land tax) compared to income from crops in 1900 (1 = 100%)



Our statements seem to have been more appreciated by statisticians and geographers, and the Central Statistical Bureau requested us to carry out the investigation for the year 2000, covering the whole region. The task was to identify the shifts and changes in underdeveloped regions in the long run.⁴¹ Quite naturally, it is a politically sensitive question as it not only implies a criticism of different political courses (communism, the success of changes after 1990, etc.) and development planning policies, but implicitly it also involves criticism towards the economic and ethnopolitics of the successor states – if there happened to be any correlation between over/underdevelopment and ethnicity.

41 For detailed description in English see: DEMETER, Gábor. Estimating regional inequalities in the Carpathian Basin – Historical origins and recent outcomes (1880–2010). In *Regional Statistics*, 2020, vol. 10, no. 1, p. 23–59. ISSN 2063-9538.

Figure 6:
Direct taxes/capita (1909, Kronen; data is missing for some cities in the plains)



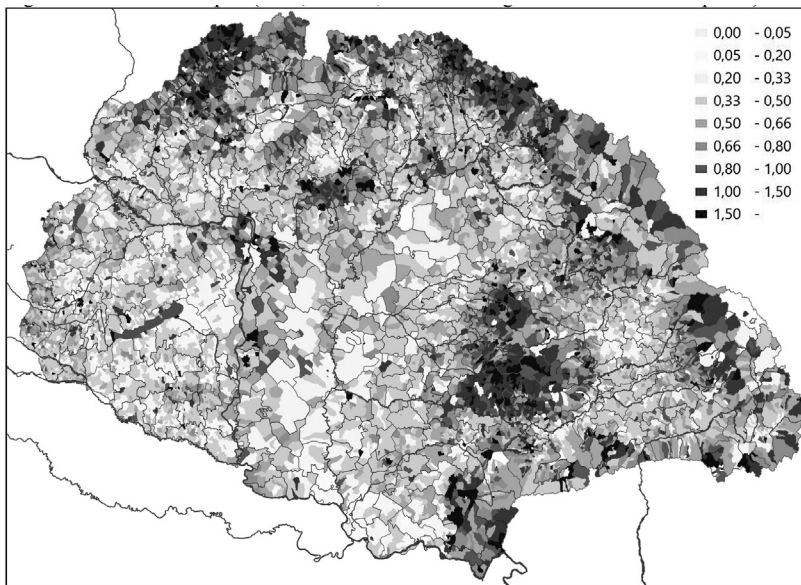
From the aspect of regional studies, the most positive outcome would be the elimination of regional disparities (with a parallel increase in development level). If the former happens without the latter, or the differences deepen, or the pattern simply changes, but differences remain, we may conclude that the development policies had failed. If a region is now counted among the backward ones and it was also underdeveloped one hundred years ago, it means that all efforts and money spent on development were in vain. If a region is now showing a weak performance, but was developed 100 years ago, it means the region had been neglected due to the fact that the focus was shifted to other regions. However, as regional policies do not necessarily coincide with the interests of other policies (namely security policy, investment policy, ethnopolitics), it is almost impossible to eliminate regional differences.

Without going into details,⁴² during the last hundred years remarkable changes can be observed: the formerly underdeveloped western Slovakia (western

42 DEMETER, Gábor. Estimating regional inequalities, ref. 41. Indicators used in this analysis: the proportion of houses built between 2001 and 2010 measured as a share of total dwellings; the proportion of the population who finished only (or failed to finish) primary school; the proportion of the population with a degree (higher education); the proportion of unemployed in total population; the proportion of employed in total population; the migration rate between 2001 and 2010 (average); the ageing index (correlates with death rate); the proportion of

Upper Hungary) became one of the most developed regions not only in modern Slovakia, but in the whole investigation area; while the formerly developed south-eastern Slovakia (along the transversal railway line) inhabited mainly by ethnic Hungarians had fallen back by 2010. Other regions not dominated by ethnic Hungarians, like eastern Slovakia had also fallen behind. As early as 1910, the latter region was characterized by a decelerated pace of development and unfavourable demography. The Central Transylvanian ethnic contact zone with mixed Romanian and Hungarian population also fell back, and so did the stripe along the Hungarian-Romanian border, dominated by ethnic Hungarians; the land of the Saxons also became a backward region after the mass emigration of the Saxons, while other territories (with Romanian majority), like Caraş-Severin emerged and stagnated even after the collapse of the communist heavy industry there. Northern Hungary fell back after the loss of Košice, the southern boundary too. Figure 8 summarizes the extent of changes in development.

Figure 7:
Direct taxes compared to net agrarian incomes (1 = 100%)



houses connected to the sewerage system; the number of persons/household (household size); income/capita. The whole dataset was normalized for the three countries and was thus considered as one entity for this examination. Indicators similar to those used in the investigation for 1910 are *Italicized*.

The trends could have served as arguments for the reasonability or justification of the territorial changes in 1920, if the differences observed in 1910 had diminished by 2010. However, they had not, and the regions often merely switched roles. In other words, for many regions, border changes were not a success story at all, while other regions profited from the changes: underdeveloped zones shifted, but did not disappear.

Figure 8:
Change in development levels between 1910 and 2010 using the changes in rankings (10%-intervals)⁴³



Development trends and patterns in the successor states (1920–1930)

The previous investigation has led us to ask when these transformations began? Certain signs show that there were remarkable changes early in the 1930s.⁴⁴ For

43 Published originally in PAPP, István – PÉNZES, János – DEMETER, Gábor. A közlekedési hálózatok és a komplex területi fejlettség időbeli összehasonlító vizsgálatának nehézségei és egy megoldási lehetősége a történelmi Magyarország példáján [Difficulties and possible solutions in the comparison of transport networks and overall spatial maturity over time in the case of Hungary]. In *Területi Statisztika*, 2021, vol. 61, no. 4, p. 445–465. ISSN 0018-7828 See the earlier version with the description of the overlay method of the 10 selected variables in DEMETER, Estimating regional inequalities, ref. 41.

44 DEMETER, Gábor. Az 1938–1941 között visszatért területek fejlettsége és szerepe az anya-

example, the southern Slovak regions returned temporarily to Hungary in 1938 were in a critical situation regarding local finances, whereas they were among the prosperous ones in the 1910s.⁴⁵ In order to check the immediate consequences of the border changes on the levels of development, we carried out a systematic regional investigation for the 1930s based on numerous indicators in order for us to be able to compare with our previous calculations.⁴⁶

We identified the pattern and direction of changes by using the situation in 1910 as a reference point for comparison. Development levels were measured against the former socio-economic and political centre (Budapest). As it was proved on the example of tax-burdens and incomes, single variables did not always show a clear picture, therefore we used a complex approach as in the case of the former investigations for 1910.

A comparison of development levels in two time horizons may raise several methodological problems. First, we were only able to measure the changes compared to Budapest, since there is no detailed data on Romania prior to 1920. Therefore we could not measure the development level of Transylvania compared to Bucharest in 1910 and 1930. Second, we had to abandon the settlement-level approach because of lack of data. (Furthermore, the Romanians reshaped the administration in Transylvania, when implementing communes composed of several villages, which were handled separately in 1910). Thus, instead of settlements we focused on districts in our investigation, which offered a more

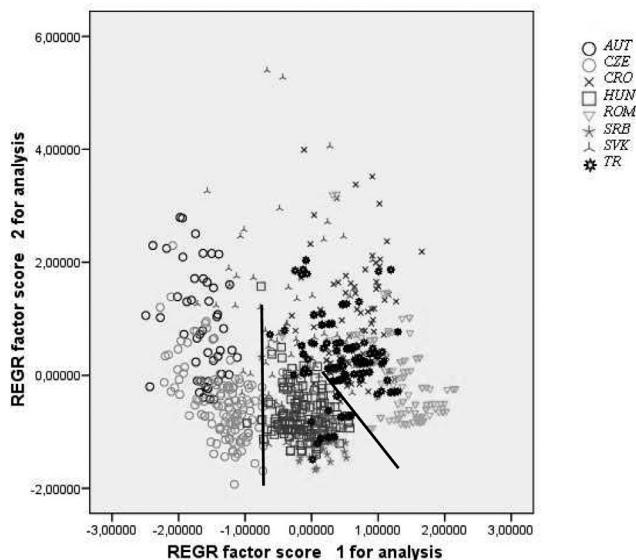
ország és az utódállamok gazdaságában a különféle történeti narratívák tükrében [The maturity and importance of the regained territories in 1938-1941 from the point of view of the economies of the successor states and Hungary in the light of historical narratives]. In *Pro Minoritate*, 2019, vol. 23, no. 3, p. 35–69. ISSN 1216-9927.

- 45 See map in Magyar Statisztikai Közlemények. 1943, no. 1, p. 115. While we use a statistical approach, there are several case studies focusing on the economic and financial development, consequences and survival strategies after the border changes by GAUCSÍK, István. A szlovákiai magyar szövetkezeti mozgalom a hálózatépítés és a központoszervezés tükrében (1918–1938) [The Hungarian cooperative movement and the building of networks in Czechoslovakia in the light of organization of the centre (1918–1938)], In *Fórum Társadalomtudományi Szemle*, 2008, vol. 9, no.3, p. 71–91. ISSN 1335-4361; GAUCSÍK, István. *A jog erejével – A szlovákiai magyarság gazdasági önszerveződése* [With the strength of law - Self-organization of the Hungarians in Slovakia]. Pozsony: Kalligram, 2008, 506. p. ISBN 978-80-8101-078-1; GAUCSÍK, István. Válság és reintegráció. A Rimamurány-Salgótarjáni Vasmű helyzete az első világháború után (1918–1924) [With the strength of truth: Self-organization of the Hungarians in Slovakia. Crisis and re-integration. The position of the Rimamurány-Salgótarjáni Iron Company after the First World War]. In *Magyar Gazdaságtörténeti Évkönyv*, 2016 vol. 1, p. 217–233. ISSN 2498-8634.
- 46 Long term effects (up to present) on border regions are investigated by PÉNZES, János. The impact of the Trianon Peace Treaty on the border zones – an attempt to analyse the historic territorial development pattern and its changes in Hungary. In *Regional Statistics*, 2020, vol. 10, no. 1, p. 60–81. ISSN 2063-9538.

transparent picture. This is not unique: Péntzes, Győri and Jakobi⁴⁷ also carried out their investigations at district level when searching for underdeveloped regions.

Figure 9:

Differences in development level of districts belonging to different political entities in 1930 based on the factor score values of the PCA carried out for the 9 selected variables.



(Tr – Transylvania, Sr – Vojvodina, Svk – former Upper Hungary, Slovakia within Czechoslovakia, Ro – Romania with 1910 boundaries, Cze – Czech Lands)

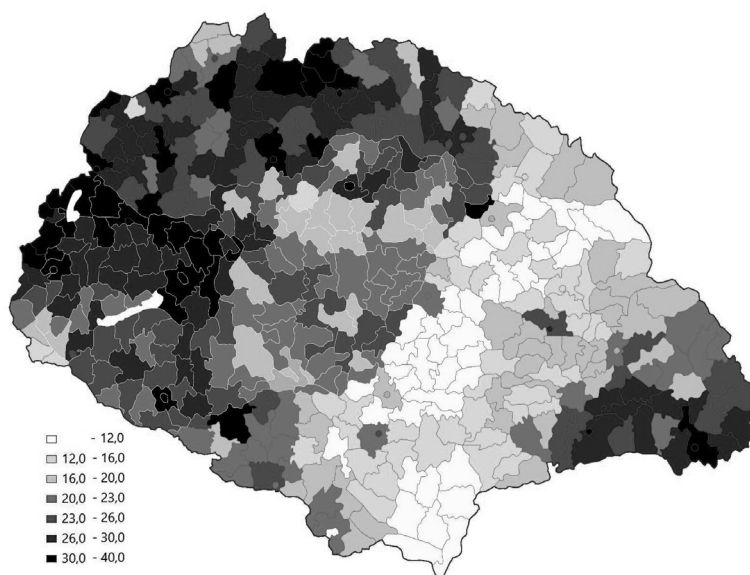
Unfortunately, none of the districts had the same territorial extent: we have more than 600 from 1910 and less than 450 in 1930. This means that the produced maps cannot be overlain on each other (in order to create a map of differences), though their visual comparison can still illustrate the changes. Another limiting factor was the number of available indicators: while in 1910 there was only one statistical bureau covering the whole investigated area, by 1930 the situation had changed, and the executed censuses did not always coincide regarding the applied methods and indicators. (The same problem occurred in 2010). Furthermore,

47 Jakobi used the LISA method, which was based on the Tobler hypothesis, that is indicating neighbouring sub-regions with similar character for each indicator (low-low, high-high value neighbours). JAKOBI, Ákos. A térbeli elhelyezkedés differenciáló szerepe a 20. század eleji Magyarországon. In DEMETER – SZULOVSKY (eds.) ref. 22, p. 117–145.

even the relevance of certain census questions might change over time. In order to handle these problems, we used the district level data of Rónai, who harmonized the different censuses in 1945 for the 1930s.⁴⁸ Then we tried to identify the common set of variables for 1910 and 1930 (using proxies if applicable), then reset the values to indicate development distances from Budapest.

Figure 10:

Aggregated development level of districts in 1930 once belonging to historical Hungary (the Hungarian districts in 1920 are indicated by white colour)⁴⁹



Taking into consideration the above mentioned constraints for 1930, the variables selected for the analysis were the following: agrarian density (agrarian inhabitant per 1 sq km), proportion of industrial earners (%), death rate, natural population increase, illiteracy rate (%), arable land from total (%), average yield of wheat (q/ha), income from meadows (ha), proportion of officials and free-lance. The district-level values were superimposed on each other and an aggregated map (Fig. 11)⁵⁰ was created to illustrate the overall level of

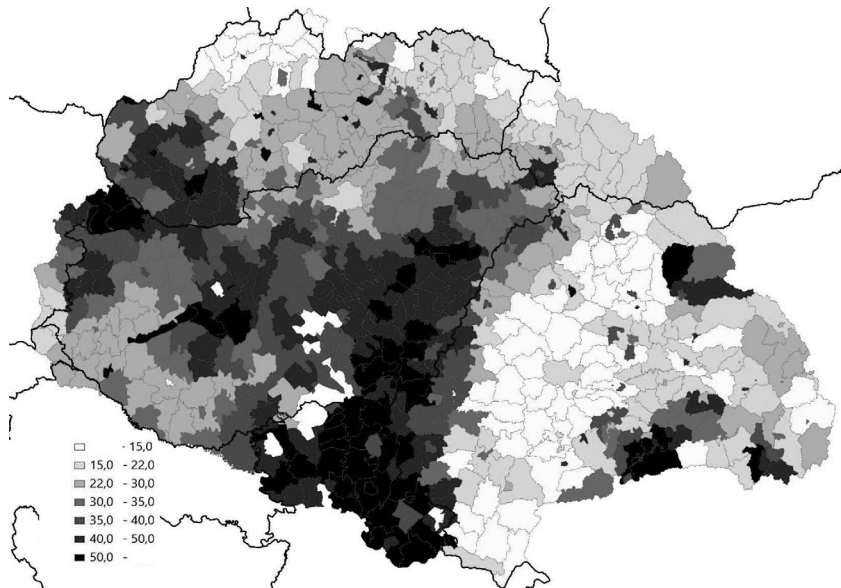
48 RÓNAI, András (ed). *Közép-Európa Atlasz* [Atlas of Central Europe]. Balatonfüred: Államtudományi Intézet, 1945, 411 p.

49 Variables aggregated: meat surplus per capita, infant mortality, potato yields/ha, agrarian density, proportion of non-agrarian earners, natural population increase, literacy rate, income from meadows/capita, wheat output/ha.

50 As high values in case of death rate or infant mortality, illiteracy and agrarian density are

development. Prior to the creation of the map, as a preliminary investigation we extended our examination to a larger area including most parts of former Cisleithania (but without Galicia) and the Romanian Kingdom. The reason for this was to check the possible character of differences on a larger area (whether there are fault lines, or gentle slopes) before labelling those found along the new borders in 1930. In addition, we also split the countries into smaller historical regions. For example, Czech lands and Slovakia were investigated separately, as well as Hungary, Transylvania and the former area of the Romanian Kingdom. Vojvodina was also a separate subregion. This means that some of the borders between the regions resembled the old, pre-war boundaries, while others represented the new borders. That way we managed to compare the character of pre-1920 and post 1920 borders, too.

Figure 11:
Aggregated development level of districts in 1910 in historical Hungary⁵¹



negative features, whereas in all the other cases high values represent positive features, the latter were added, while the former were subtracted from the sum to get the aggregated development level.

- 51 Variables used for the aggregation were: literacy rate, death rate, natural population increase, migration rate, proportion of non-agrarian earners, proportion of medical treatments measured to deaths, proportion of smallholders compelled to do daily wage labour, direct tax per capita, net land revenue per capita, settlement wealth per capita.

As a first step we identified the relationships between the indicators with the aid of a correlation matrix, which confirmed that most of the indicators are not independent. Then these variables underwent a PCA in order to reduce the dimension number of indicators and to illustrate the results on a two-dimensional diagram. The nine variables were grouped into 3 factors. Factor 3 contained bureaucracy only, while Factor 1 included demographic indicators, the ratio of industrial earners and the output per hectare in agriculture. The latter two showed strong and negative correlation with the demographic indicators and positive with each other, showing that there is no agrarian progress without industrialization⁵². Factor 2 included agrarian density and arable land from the total. Out of the 10 indicators available at district level almost all were available for 1910, thus the two investigations are comparable. Instead of the original indicator values characteristic for the districts, the so-called factor score values were saved and illustrated on a two-dimensional diagram.

If the more than 850 districts are illustrated on a diagram (Fig. 9.) then one may recognize that the Austrian and Czech districts have a well-delimited area, isolated from other regions, which shows that the Tobler hypothesis does not apply here: rather than a gradual slope, a sudden drop occurs in development. Though the dissolution of Austria-Hungary happened a decade before the census data processed here, it is still surprising that (1) the differences between the two major constituents of Austria-Hungary were so remarkable in the 1930s; (2), which implicitly means that Czechoslovakia, as a new political entity was unable to integrate its eastern parts within those 10 years. This state was divided in terms of economic development. However, one may argue that 10 years is not enough for economic restructuring. This is certainly true and historical works with classic historical methods also come to this conclusion.⁵³ On the other hand, one should also admit that there was a remarkable restructuring within Slovakia, as there was a shift regarding the location of most developed regions from the south-western parts, northward between 1910 and 1930, which clearly shows that the centre had changed. This is also confirmed by the change of railway

52 Or is there no industrialization without agrarian progress? Correlation ($p=0,665$) does not refer to cause and effect relationships, it simply indicates whether or not there is relationship between two variables. The results of the regression analysis proved that it is the level of industrialization which influences agrarian production the most in the region (besides the extent of available arable land): every 1% increase in the number of industrial employees caused a 4% increase in crop production per hectare. Investigations on partial correlations also showed that even alphabetization influences the relationship between industrialization and agrarian output ($r=0,66$ dropped back to 0.34 if illiteracy was involved).

53 SIMON, Attila. *Magyar idők a Felvidéken (1938–1945): Az első bécsi döntés és következményei* [The Hungarian period in the Highlands (1938-1945). The First Vienna Arbitration and its results]. Budapest: Jaffa Kiadó, 2014, 247 p. ISBN: 9786155418914

density per km² as calculated by Papp.⁵⁴ His map shows that connections along the Hungarian-Slovak border became weaker, while internal connections within Slovakia and Slovak-Czech links became stronger and this could contribute to the shift in development levels.

If we investigate the chart further, we may realize that there is an overlap between the former territories of Transylvania and the Romanian Kingdom with regard to the character and level of development. The districts belonging to Slovakia are completely scattered in the diagram and overlap with Hungary (without Transylvania and Vojvodina). In other words, areas of similar development existed in 1930 along the Czechoslovak-Hungarian border, contrary to the situation observed along the Hungarian-Romanian (Transylvanian) border: Transylvanian districts did not mix with Hungarian and occupied a separate space in the diagram in 1930 (but they remain mixed with Slovak and Romanian districts). Knowing that the situation was similar in 1910, as there was a sudden drop in development level towards the east (Fig. 1), one may come to the conclusion that the situation in this segment had not ameliorated by 1930. The districts of Vojvodina also overlapped with the districts of Hungary in 1930 (but separated themselves from Transylvania or Romania), which means that the new border did not polarize the differences in the south during that 10-year period. Furthermore, this also implies that the differences in the level of development in the former area of the Hungarian Kingdom were often smaller in 1930 (despite the fact that now these districts belonged to 4 different political entities), than, for example, the differences between Czech and Slovak districts (belonging to the same political entity).

To sum it up, there was a great (and inherited) “fault line” along the rivers Leitha and Morava still observable in 1930, whereas towards the east the differences in development levels diminished gradually: most of the regions there occupied overlapping space in the chart, verifying the Tobler hypothesis in these cases. This was confirmed by the discriminant-analysis carried out as a control investigation. Using 4 variables: industrial employees, wheat output per hectare, literacy rate and ratio of public servants, automatic reclassification brought a 55% success rate. Czech and Austrian regions overlapped, but they were clearly discernable from all the other groups (regions). In the case of (small) Hungary the success rate of reclassification of the districts grew above 75%, whereas it remained under 50% in the surrounding countries. This may be due to the fact that the past 10 years were not enough to overprint former patterns and to integrate territories with different development. The border regions can be reclassified also to the other side of the boundary: 40% of Croatian and 50% of

54 PAPP – PÉNZES – DEMETER, ref. 43.

Serbian districts were classified as Transylvanian by the SPSS software, while 30% of the Transylvanian districts were classified as “Old Romanian”⁵⁵.

The question is whether this “fuzziness” is an inherited feature and the new states were simply unable to overwrite this within this short timespan, or the situation is rather a consequence of the new economic policies that halted further divergence.⁵⁶ This led us to reduce the investigation to the area of prewar Hungary, which comprised 450 districts.

The spatial pattern of the cumulative development level in 1930 of the districts that had belonged to Hungary (the complex indicator contained meat surplus per capita, infant mortality and potato yields/ha besides those previously mentioned) still indicated a sudden drop along the new Hungarian-Romanian border (Fig. 10). Since the situation was the same in 1910, one may come to the conclusion that *a decade did not suffice for the new rule to decrease the old differences*; what is more, these differences became even more marked after the cutoff of old ties. By 1930 the location of backward areas completely shifted to the regions along the new borderline.

Contrary to this, the Slovak districts performed far better. The position of the Slovak districts improved in general when compared with the situation in 1910. Northern Slovakia was advancing, while the differences in development level along the new border were not so evident, it was rather characterized by “symmetry”. Both underdeveloped and developed Hungarian districts along the border had their “equivalents” in southern Slovakia on the other side of the border. The gradual, concentric character of decrease in development level

55 If the number of variables is increased to 10, then the rate of successful reclassifications increases to 80% in Austria, Old Romania and Vojvodina, and to 60% in Slovakia and Transylvania. In that case 20% of the Slovak districts were classified as Hungarian, 20% of Serbian and 10% of Romanian districts were classified as Transylvanian, while 15% of Transylvanian districts were identified as “Old Romanian”. See: DEMETER, Gábor – RADICS, Zsolt. A gazdasági fejlettség regionális különbségeinek vizsgálata az Osztrák–Magyar Monarchia utódállamaiban járásszintű adatok alapján [Research on regional economic differences on the basis of district data from the Successor States of Austria-Hungary]. In *Történeti Földrajzi Közlemények*, 2015, vol. 6, no. 2, p. 233–246. ISSN 2064-390X.

56 There are some phenomena pointing towards this too. Railway density decreased along the new boundaries of Hungary, whereas elsewhere new intraregional connections were established, in order to redirect the links between regions integrated into new state conglomerates. Vršecký emphasizes the great development in literacy rate in Slovakia within 10 years when comparing the progressing areas with the progress of railways. MAREK, Václav (VRŠECKÝ, Martin). *Souvislosti rozmístění socioekonomických charakteristik obyvatelstva a hospodářství ve vztahu k železniční síti v Československu v letech 1921 a 1930* [The connections between the distribution of the socio-economic characteristics of the population and the economy in relation to the railway network in Czechoslovakia, 1921–1930]. Diploma thesis. Praha 2015.

measured from Budapest that dominated the situation in the 1910s had vanished by 1930; and, in general, the areas along the transversal railway were no longer among the developed ones. (Neither was Budapest the leading district because of its food shortage). Transcarpathia still remained a backward area in 1930, but the underdevelopment of north-western Slovakia had begun to fade (its backwardness disappears by 2010). In Transylvania the land of the Saxons was still the most developed in 1930, considering not only the towns, but rural regions too, while the land of the Székelys remained at an intermediate stage of development, much as it was in 1910. Caraş-Severin was still below the average in 1930 (in 2010 it was ranked above the regional average), as well as the mountainous regions in general.

Comparing the situation in 1930 to that in 1910 (as we mentioned the district boundaries were not identical, therefore the two maps cannot be overlain), it seems that the districts located in the plains in the south (Vojvodina, Banat, southern Transdanubia) and in south-western Slovakia and also in the vicinity of Prekmurje fell back significantly, whereas the relative position (measured in rankings) of the Székely region improved by 1930 (Fig. 11). Bistriţa-Nasaud also suffered a serious setback in position, while the situation in Slovak districts (with the exception of the above mentioned south-western region) generally improved, not only when measured against the situation in 1910, but also if compared to the neighbouring Hungarian districts. Generally, there was an evident shift in the most developed areas from Vojvodina to north-western Transdanubia. The territorial extent of developed regions also decreased in Hungary by 1930. It was especially eastern Hungary that experienced a downturn, while south-eastern Hungary and the north-eastern mountainous region improved their position. This is also confirmed by another investigation based on HDI (composed of literacy, mortality, taxation) in 1941 carried out only for the post-1920 territories of Hungary.⁵⁷ The latter also means that the tendencies visible in 1930 before the Great Depression were not overwritten by the government measures initiated there at the end of the 1930s.

Concluding remarks

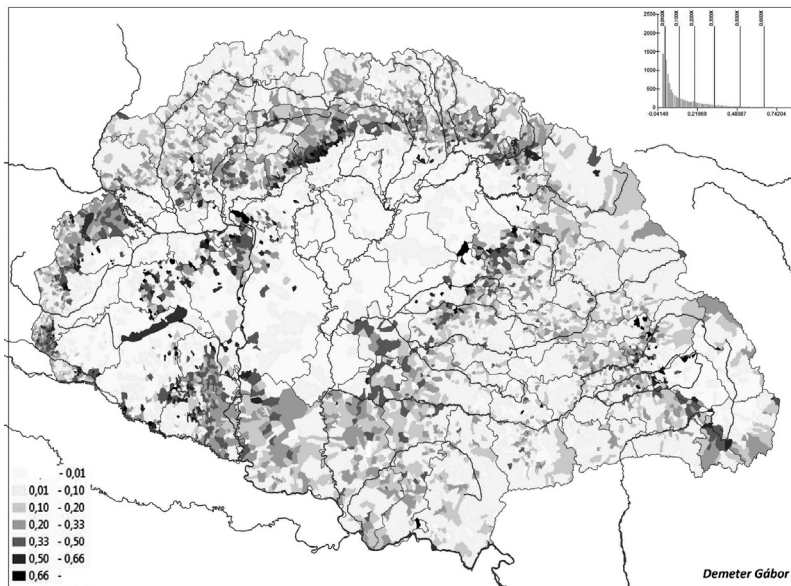
The Hungarian Kingdom had been characterized by serious regional disparities in 1910, which were partly the consequence of the economic policy of the government. The backward regions were often identical with the areas

57 BÁN, Gergely. Magyarország fejlettségi vizsgálata a 20. század első felében [Analysis of the economic development of Hungary in the first half of the 20th century]. In *Új Nézőpont*, 2020, vol. 7, no. 4. ISSN 2064-7042 (in press).

inhabited by ethnic minorities: Slovaks, Romanians and Ruthenians, but there were some exceptions too, like Vojvodina. The (rarely analysed) economic underdevelopment, the uneven development rate of the regions together with other well-known problems, such as the language-question, suffrage question, land question, demand of minorities for self-governance exacerbated, rather than diminished tensions. These fault lines representing territorial inequalities often corresponded to other fractures that already existed before the Trianon peace treaty dismembered the country (which happened partly along these fault lines).

Figure 12:

The progression of assimilation: difference between the proportion of the population able to speak Hungarian and the population with Hungarian mother tongue in 1910 (1=100%).



A 20% difference practically means that either 1 child in school or one parent per family was able to speak Hungarian from among non-ethnic Hungarians – compare map with Table 1 and Table 2.

Our results indicate that “Magyarization” and modernization went hand in hand making the latter often an undesired outcome because of its secondary effect. Industrialization also contributed to this and also to the increase of territorial inequalities, as the industrial concentration characteristic of the 1900-1910 period ruined the small-scale traditional industry of the geographical periphery.

There was also a significant shift in the extent and the location of the most developed territories between 1910 and 2010. Some of the most backward regions (NW-Slovakia) developed (some did not), while relatively developed areas in 1910 had fallen behind by 2010 (SE and S-Slovakia). Some of these changes already began in the 1930s. These were partly due to the new ethno- and economic policies of the successor states, partly due to the loss of traditional connections and the loss of the division of labour. However, the new borders could not diminish the former regional disparities in all the regions. This means that the successor states were either unable or unwilling to overcome the problem within the short timespan before the Great Depression.

Between 1910 and 1930 the formerly peripheral Slovakia was developing (but was still far away from the level of the Czech lands), the backward Transylvania and the developed Vojvodina were experiencing setbacks, similar to eastern Hungary, which was also among the leading regions in 1910. The areas along the Danube were similarly well-developed despite the new boundary cutting through them. From a broader perspective, the fault line between Austria and Hungary still persisted in 1930, and a similar cleavage occurred between the major constituents of Czechoslovakia.

Gábor Demeter, PhD
Research Centre for the Humanities, Institute of History
1097 Tóth Kálmán Street 4, Budapest
e-mail: demeter.gabor@btk.mta.hu

Zsolt Horbulák, PhD.
University of Economics in Bratislava
Faculty of National Economy, Department of Economics
Dolnozemska cesta 1, 852 35 Bratislava
e-mail: zsolt.horbulak@euba.sk