TENDENCIES OF CHANGE CONCERNING BUSINESS ORGANISATIONS IN THE CONSTRUCTION INDUSTRY IN HUNGARY BETWEEN 2000 AND 2013

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Abstract: The distribution of business organisations according to the number of employees has long been an important area of research in economic geography. What is in the background of the above is that the economic position of individual geographical areas, as well as the strength of the local economy, are fundamentally influenced by the size of the companies operating there. In the light of the above, the purpose of this paper is to examine the changes concerning the size categories of registered business organisations in the construction industry, which is considered as an important base of the economy, in the period between 2000 and 2013, as well as to address the differences between the counties.

Keywords: construction industry, Hungary, counties

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INTRODUCTION

The distribution of business organisations according to the number of employees has long been an important area of research in economic geography. What is in the background of the above is that the economic position of individual geographical areas, as well as the strength of the local economy, are fundamentally influenced by the size of the companies operating there: larger companies, as a result of higher levels of employment and larger amounts of capital at their disposal, provide a more secure basis for development (Baráth et al., 2011; Péter et al., 2011; Rőfi et al., 2011).

In the light of the above, the purpose of this paper is to examine the changes concerning the size categories of registered business organisations in the construction industry, which is considered as an important base of the economy (Coe et al., 2007; Comber et al., 2008), in the period between 2000 and 2013, as well as to address the differences between the counties. In the course of our analysis, we also wish to point out some of the most important tendencies of change that occurred in the new millennium.

GENERAL TENDENCIES OF CHANGE

Examining the changes in the number of registered business organisations (Figure 1, Table 1), we can observe a very significant change between data pertaining to the construction industry and the economy as a whole. The first half of the period examined was characterised by significant growth in the construction industry, the rate of which exceeded the rate of growth in the economy as a whole. In the second half of the decade (mainly after 2008), however, in contrast with the processes in the larger economy, there was already stagnation, and then after 2011, a major decrease could be observed. In the background of this process, we can primarily identify the drop in the level of investments, which is attributable to the effects of the economic crisis.
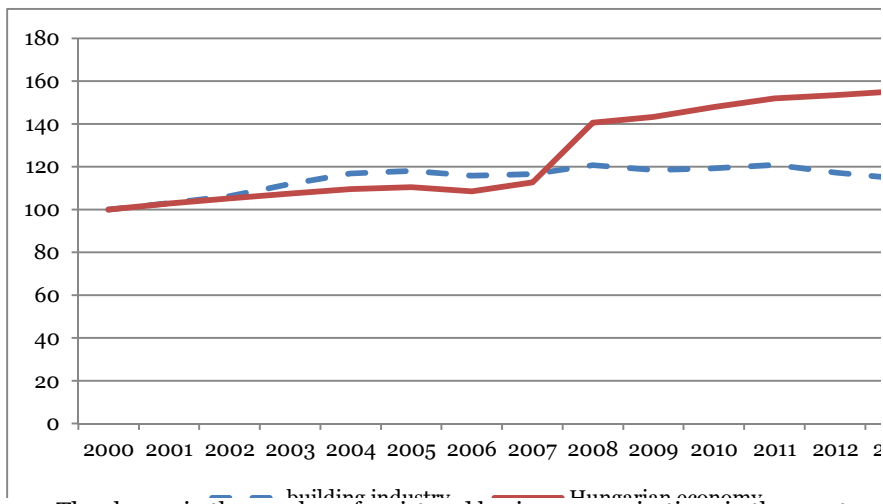
Figure 1 The change in the number of registered business organisations in the construction industry and the economy as a whole, relative to the levels in 2000 (2000 = 100%)
Source: Central Statistical Office

Table 1 The change in the number of registered business organisations in the construction industry and the economy as a whole, between 2000 and 2013 (number of companies)

	construction industry	Hungarian economy
2000	81,503	1,174,881
2001	83,906	1,207,137
2002	86,635	1,236,140
2003	91,158	1,263,138
2004	95,218	1,285,987
2005	96,243	1,297,687
2006	94,436	1,274,348
2007	94,956	1,323,409
2008	98,410	1,651,415
2009	96,552	1,682,791
2010	97,222	1,737,729
2011	98,521	1,785,298
2012	95,536	1,801,707
2013	93,368	1,823,134

Source: Central Statistical Office

Concerning the distribution of registered business organisations according to the number of employees (Table 2a and 2b), two questions deserve special attention: first, what differences can be observed between the data pertaining to the construction industry and the entire economy; and second, what changes over time occurred in the case of the construction industry. In the framework of a comparison between the data concerning the construction industry and the economy as a whole, we can clearly conclude that the proportion of smaller companies is higher in the construction industry than in the economy as a whole, while in case of larger companies (having more than 50 employees), the situation is the opposite. There are primarily two factors in the background of this phenomenon: on the one hand, a significant part of the market demand in the construction industry (e.g. the construction of family residences, interior decoration and home improvement, repairs) are smaller projects, and smaller businesses are more suitable for implementing these. On the other hand, in the construction industry, even in the case of larger projects, the use of a system of subcontractors is quite widespread, meaning that several smaller enterprises, each having a specialized expertise, would typically work on the implementation of larger projects also.

Examining the change over time of the size of registered business organisations reveals two larger groups (for reasons provided in the caption of the table, the categories of companies with 0 or unknown, as well as those having 1 to 4 employees were not analysed). In case of business organisations having 5 to 9 and those having 10 to 19 employees, we can still observe a growth until the middle of the first decade of the 21st century, while the decrease was continuous in case of business organisations having 50 employees or more. (There was some fluctuation in case of those with 20 to 49 employees, but the decrease became marked by the end of the period examined.)

Table 2a The change in the proportions of business organisations in different categories according to the number of employees relative to all registered business organisations in the construction industry (A) and in the entire economy (B) between 2000 and 2013 (the significant rearrangement between organisations with zero/unknown and 1 to 4 employees was fundamentally due to administrative reasons)

	0 person employed and unknown		1-4 persons employed		5-9 persons employed		10-19 persons employed	
	A	B	A	B	A	B	A	B
2000	64.32	72.42	25.56	20.97	4.90	2.77	3.11	1.87
2001	61.99	71.78	27.92	21.60	5.01	2.86	3.06	1.81
2002	60.03	70.88	29.50	22.43	5.44	2.99	3.07	1.79
2003	59.01	70.59	30.50	22.73	5.48	3.01	3.05	1.77
2004	24.91	46.74	64.37	46.41	5.79	3.21	3.04	1.78
2005	15.90	33.84	73.06	59.21	6.00	3.29	3.15	1.79
2006	15.32	32.46	72.71	60.25	6.61	3.53	3.48	1.85
2007	17.01	32.11	70.96	60.91	6.92	3.44	3.32	1.81
2008	19.13	26.46	68.44	67.77	7.05	2.83	3.50	1.50
2009	19.82	29.72	67.85	64.65	7.14	2.79	3.35	1.40
2010	19.66	31.01	68.41	63.55	7.04	2.71	3.18	1.36
2011	20.00	31.99	68.95	62.86	6.50	2.58	2.96	1.28
2012	19.73	32.93	68.90	61.93	6.68	2.60	3.12	1.30
2013	19.64	33.59	69.50	61.45	6.43	2.53	2.91	1.28

Source: Central Statistical Office

Table 2b The change in the proportions of business organisations in different categories according to the number of employees relative to all registered business organisations in the construction industry (A) and in the entire economy (B) between 2000 and 2013 (the significant rearrangement between organisations with zero/unknown and 1 to 4 employees was fundamentally due to administrative reasons)

	20-49 persons employed		50-249 persons employed		250 and more	
	A	B	A	B	A	B
2000	1.59	1.17	0.47	0.69	0.04	0.13
2001	1.51	1.16	0.47	0.68	0.04	0.12
2002	1.48	1.15	0.44	0.65	0.04	0.11
2003	1.48	1.14	0.44	0.65	0.04	0.11
2004	1.44	1.11	0.43	0.65	0.03	0.11
2005	1.47	1.13	0.38	0.64	0.03	0.10
2006	1.49	1.17	0.36	0.64	0.03	0.10
2007	1.39	1.03	0.37	0.59	0.03	0.10
2008	1.48	0.87	0.37	0.49	0.03	0.08
2009	1.45	0.86	0.37	0.49	0.03	0.08
2010	1.35	0.83	0.33	0.47	0.03	0.08
2011	1.25	0.77	0.32	0.45	0.02	0.08
2012	1.21	0.74	0.33	0.43	0.02	0.08
2013	1.21	0.71	0.29	0.38	0.02	0.07

Source: Central Statistical Office

As far as the rates of change are concerned (Table 3), we can clearly observe that in case of smaller companies (those with 5 to 9 and 10 to 19 employees), the figures of the construction industry are better, while in case of larger companies the rate of the decrease was much higher.

Table 3 The rates of change of registered business organisations of different sizes between 2000 and 2013 in the construction industry and in the entire economy (%)

	2013 (2010=100)	
	building industry	Hungarian economy
0 person employed and unknown	34.98	71.97
1-4 person employed	311.47	454.75
5-9 persons employed	150.36	141.81
10-19 persons employed	107.25	106.29
20-49 persons employed	87.26	93.61
50-249 persons employed	69.87	85.50
250 and more	51.43	91.58

Source: Central Statistical Office

Major differences can also be observed with respect to the distribution of business organisations operating in the construction industry on the basis of their specialized sub-sectors (Table 4). Nearly two-thirds of all organisations were operating in the sub-sector of specialized construction work (which includes, among other things, the category of "other building installation" and "building completion and finishing"); the second place belonged to the construction of buildings, with the rest of the sub-sectors having only a minimal share. At the same time, it can be clearly seen from the data that the individual sub-sectors have different weights among the registered business organisations.

Table 4 The distribution of registered business organisations of different size categories in a breakdown according to sub-sectors of the construction industry in 2013

	A	B	C	D	D	total
0 person employed and unknown	43.4	4.1	4.1	2.0	46.3	100.0
1-4 persons employed	21.7	1.9	2.4	1.1	72.9	100.0
5-9 persons employed	33.6	5.4	3.9	1.7	55.4	100.0
10-19 persons employed	34.8	7.5	6.5	2.8	48.4	100.0
20-49 persons employed	37.6	9.4	9.8	3.7	39.5	100.0
50-249 persons employed	34.6	8.6	14.5	8.6	33.8	100.0
250 and more	11.1	44.4	33.3	5.6	5.6	100.0
total	27.4	2.8	3.1	1.4	65.3	100.0

A – construction of buildings, B – construction of roads and railways, C – construction of public utilities, D – other construction activities, E – specialized construction activities
Source: Central Statistical Office

Among smaller companies, it was mainly the sub-sectors of construction of buildings and specialized construct work that were overrepresented, while in case of larger companies, this was mainly characteristic in case of the construction of roads, railways and public utility

works, as well as the erection of other structures sub-sectors. What we can assume is primarily in the background of this process is that the successful operation of companies active in the latter sub-sectors requires a significant stock of capital and inventory of assets, which can decisively be provided by larger companies.

THE TERRITORIAL CHARACTERISTICS OF THE TENDENCIES OF CHANGE

In the course of the examination of the distribution of registered business organisations active in the construction industry, it is expedient to analyse relative (i.e. per 1000 population), figures. As far as the average of the period between 2000 and 2013 (Table 5) is concerned, the city of Budapest and Pest county are in the best position, with the values of four counties exceeding the national average. An examination of the geographical location of the territorial units concerned, the dominant role of Central Hungary and North-Western Hungary can be observed, which is primarily related to the more frequent building construction activities resulting from the economically more developed status of these regions.

Table 5 The average number of registered business organisations per 1000 persons in the period between 2000 and 2013 in the construction industry (A) and the total economy (B) in Hungarian counties (%)

	A	B
Budapest	134.0	156.6
Pest county	130.4	91.4
Fejér county	110.0	84.6
Komárom-Esztergom county	117.5	83.8
Veszprém county	107.6	96.1
Győr-Moson-Sopron county	111.3	96.1
Vas county	96.1	90.9
Zala county	95.2	106.3
Baranya county	95.9	94.2
Somogy county	83.4	105.7
Tolna county	92.7	88.2
Borsod-Abaúj-Zemplén county	66.2	65.9
Heves county	85.1	83.9
Nógrád county	79.7	67.8
Hajdú-Bihar county	77.3	87.1
Szabolcs-Szatmár-Bereg county	71.5	89.3
Jász-Nagykun-Szolnok county	76.8	72.4
Bács-Kiskun county	84.7	94.6
Békés county	63.1	87.2
Csongrád county	84.3	100.6
total	100.0	100.0

Source: Central Statistical Office

If we compare the values characterising the economy as a whole with the situation of the construction industry, a higher value for the latter is found outside of Budapest in territorial units performing well in the construction industry, while the opposite situation can be observed in the capital city, on the one hand, and in Somogy, Szabolcs-Szatmár-Bereg, Békés and Csongrád counties, on the other hand.

If we examine the changes on the level of counties (Table 6), a decrease in the construction industry could be observed only in two counties, Zala and Nógrád, while in all the other territorial units, the number of business organisations active in the construction industry increased between 2000 and 2013, in line with the figures characteristic of the entire economy. As far as the rate of change relative to the national average of the industry is concerned, however, we can conclude that a significant increase only occurred in Pest, Győr-Moson-Sopron and Vas counties.

Table 6 The change in the number of registered business organisations between 2000 and 2013 in the construction industry and in the Hungarian economy

	2013/2000		county value relative to national value	
	construction industry	total economy	construction industry	total economy
Budapest	100.76	119.95	87.96	77.30
Pest county	138.90	178.77	121.25	115.20
Fejér county	110.14	142.20	96.14	91.64
Komárom-Esztergom county	103.68	139.34	90.50	89.79
Veszprém county	116.06	130.54	101.31	84.12
Győr-Moson-Sopron county	130.19	159.18	113.64	102.58
Vas county	142.39	155.61	124.29	100.28
Zala county	97.89	141.66	85.45	91.29
Baranya county	112.04	139.36	97.80	89.81
Somogy county	108.72	138.52	94.90	89.27
Tolna county	112.61	148.92	98.30	95.97
Borsod-Abaúj-Zemplén county	109.42	151.07	95.51	97.35
Heves county	119.36	185.31	104.19	119.41
Nógrád county	89.53	158.04	78.15	101.84
Hajdú-Bihar county	131.13	212.31	114.46	136.81
Szabolcs-Szatmár-Bereg county	121.35	272.30	105.93	175.47
Jász-Nagykun-Szolnok county	102.29	169.24	89.29	109.06
Bács-Kiskun county	123.64	196.20	107.93	126.44
Békés county	111.28	212.83	97.13	137.15
Csongrád county	115.61	176.96	100.91	114.04
Hungary	114.56	155.18	100.00	100.00

Source: Central Statistical Office

The comparison of the data pertaining to the construction industry and the entire economy reveals that there is a significant – more than 20% – positive difference for the construction industry in one county only (Vas county), while the opposite (the value for the

entire economy being 20% higher than the value for the construction industry) was the case in 4 counties (Nógrád, Hajdú-Bihar, Szabolcs-Szatmár-Bereg and Békés counties), with Jász-Nagykun-Szolnok and Bács-Kiskun counties also being very close to that.

As far as the average number of employees of business organisations is concerned (Figure 2), in the first half of the first decade of the century, that value was around 8-9, but a decrease started around 2006/2007 – probably due to the economic crisis just then setting in – and today that value is hardly above 6 employees/company.
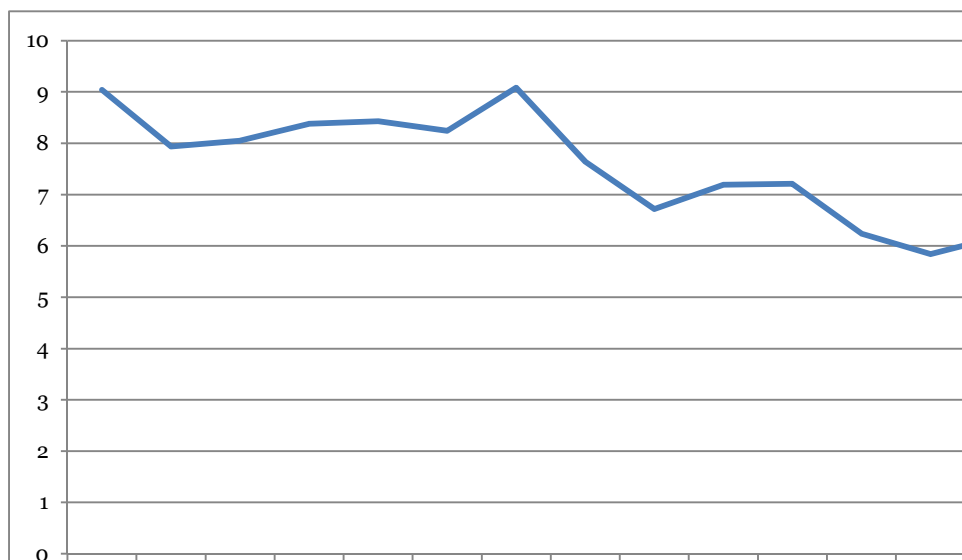
Figure 2 Changes in average company size in the construction industry between 2000 and 2013 (taking into consideration registered business organisations having more than 4 employees)

Source: Central Statistical Office

If we examine county data (Table 7), we can find very low values for Nógrád, Pest and Komárom-Esztergom counties, with Somogy, Vas, Győr-Moson-Sopron and Csongrád counties representing the opposite extreme (values significantly above the national average). With a view to changes over time, a clear tendency can be established in very few counties, as current investment projects of large budgets, often realized with the financial support of the European Union, generally improved the situation of counties for one or two years, which was then followed by a setback. The spread indicator showing the extent of changes, however, reflects that larger fluctuations could primarily be observed in case of counties with larger-than-average-size business organisations in the region (e.g. Somogy and Vas counties).

Table 7 The values indicating average company size and the changes in the same in the counties of Hungary between 2000 and 2013

	A	B	C
Budapest	6.80	89.7	1.18
Pest county	5.77	76.1	0.83
Fejér county	7.21	95.2	1.23
Komárom-Esztergom county	6.06	79.9	1.01
Veszprém county	9.05	119.3	1.46
Győr-Moson-Sopron county	9.57	126.3	1.51
Vas county	9.92	130.8	2.35
Zala county	9.57	126.3	1.69
Baranya county	8.62	113.7	1.51
Somogy county	10.63	140.3	2.35
Tolna county	8.52	112.4	1.40
Borsod-Abaúj-Zemplén county	9.27	122.3	1.55
Heves county	7.27	95.9	1.67
Nógrád county	5.31	70.1	1.07
Hajdú-Bihar county	7.73	101.9	1.72
Szabolcs-Szatmár-Bereg county	7.61	100.4	1.91
Jász-Nagykun-Szolnok county	7.40	97.7	0.71
Bács-Kiskun county	7.28	96.0	1.56
Békés county	9.12	120.3	1.76
Csongrád county	9.66	127.5	2.69
Hungary	7.58	100.0	1.05

A – the mean value of average company sizes in the construction industry in the years between 2000 and 2013 (taking into consideration registered business organisations having more than 4 employees), B – the relationship between the county-level mean value of average company sizes between 2000 and 2013 relative to the national value (%), C – the spread of average company sizes in the construction industry between 2000 and 2013

Source: Central Statistical Office

If we examine the distribution of registered business organisations operating in the construction industry according to size categories in 2013 (Table 8), we can conclude that larger companies (having more than 50 employees) can be found in Budapest, as well as in Borsod-Abaúj-Zemplén and Csongrád counties. (If we also consider companies with 20 to 49 employees, we can add Tolna, Szabolcs-Szatmár-Bereg and Békés counties). The opposite extreme (where the proportion of larger companies is very low) primarily consists of Pest, Veszprém, Vas and Nógrád counties.

Table 8 The distribution of construction industry companies in various size categories in each of the counties of Hungary in 2013 (%)

	A	B	C	D	E	F	total
Budapest	33.34	55.12	6.18	3.35	1.57	0.43	100.0
Pest county	22.48	68.51	5.68	2.35	0.74	0.24	100.0
Fejér county	15.96	74.01	6.36	2.55	1.00	0.12	100.0
Komárom-Esztergom county	16.57	73.07	6.37	2.70	1.22	0.06	100.0
Veszprém county	10.53	80.88	5.54	2.12	0.73	0.20	100.0
Győr-Moson-Sopron county	12.41	78.01	6.11	2.23	1.01	0.23	100.0
Vas county	11.50	80.54	4.46	2.65	0.73	0.12	100.0
Zala county	12.15	77.06	5.88	3.22	1.35	0.34	100.0
Baranya county	14.05	74.85	6.58	3.01	1.30	0.21	100.0
Somogy county	10.75	78.98	6.28	2.88	0.83	0.28	100.0
Tolna county	11.96	75.06	8.04	2.90	1.68	0.36	100.0
Borsod-Abaúj-Zemplén county	18.19	68.56	7.34	3.96	1.36	0.58	100.0
Heves county	15.24	73.90	6.86	2.45	1.27	0.29	100.0
Nógrád county	12.89	77.21	7.35	2.02	0.52	0.00	100.0
Hajdú-Bihar county	11.75	75.01	7.73	3.77	1.42	0.32	100.0
Szabolcs-Szatmár-Bereg county	18.47	68.40	7.98	3.17	1.64	0.34	100.0
Jász-Nagykun-Szolnok county	13.72	74.42	7.90	2.91	0.82	0.22	100.0
Bács-Kiskun county	13.17	75.75	6.80	2.84	1.14	0.30	100.0
Békés county	10.55	77.98	6.13	3.09	1.89	0.37	100.0
Csongrád county	12.84	74.70	7.26	3.17	1.52	0.51	100.0
Hungary	19.64	69.50	6.43	2.91	1.21	0.31	100.0

A – 0 person employed and unknown, B – 1-4 persons employed, C – 5-9 persons employed, D – 10-19 persons employed, E – 20-49 persons employed, F – 50 and more

Source: Central Statistical Office

The analysis of the distribution of registered business organisations in the construction industry in a breakdown according to sub-sectors and counties (Table 9) reveals several peculiar features. In the case of the construction of buildings sub-sector, the share of larger companies was particularly high in Szabolcs-Szatmár-Bereg, Békés and Csongrád counties, while in case of the erection of other structures sub-sector, the same can be observed in Zala and Somogy Counties, and in case of the specialized construction work sub-sector, in Budapest and in Borsod-Abaúj-Zemplén county.

Table 9 The distribution of registered business organisations active in the construction industry in a breakdown according to number of employees in the counties of Hungary, in the various sub-sectors of the construction industry, in 2013 (%)

	construction of buildings			civil engineering works			specialized construction activities		
	A	B	C	A	B	C	A	B	C
Budapest	88.7	9.5	1.8	80.4	13.3	6.2	89.4	9.0	1.5
Pest county	89.6	9.2	1.2	80.5	15.5	4.1	92.7	6.7	0.6
Fejér county	87.3	11.5	1.2	76.9	18.6	4.5	92.1	7.1	0.8
Komárom-Esztergom county	85.5	12.1	2.4	77.8	18.2	4.0	92.1	7.2	0.7
Veszprém county	87.4	10.7	2.0	81.9	13.5	4.7	93.5	6.2	0.3
Győr-Moson-Sopron county	85.8	12.1	2.1	74.7	19.6	5.7	92.6	6.6	0.7
Vas county	87.0	11.4	1.6	79.2	16.7	4.2	94.5	5.1	0.4
Zala county	83.9	13.4	2.7	66.9	24.4	8.7	93.1	6.2	0.7
Baranya county	84.5	13.2	2.3	77.9	16.3	5.8	91.4	7.7	0.9
Somogy county	85.5	13.1	1.4	68.1	24.1	7.8	93.7	6.0	0.3
Tolna county	78.9	17.9	3.1	80.6	15.0	4.4	90.2	8.4	1.4
Borsod-Abaúj-Zemplén county	83.3	14.1	2.6	75.6	20.1	4.3	89.7	8.9	1.4
Heves county	84.2	13.4	2.4	82.1	14.6	3.3	92.2	6.8	1.0
Nógrád county	85.6	12.4	2.1	83.1	16.9	0.0	92.4	7.6	0.0
Hajdú-Bihar county	81.4	16.2	2.4	71.6	21.6	6.8	90.5	8.6	0.9
Szabolcs-Szatmár-Bereg county	81.8	15.2	2.9	79.5	15.9	4.6	90.4	8.5	1.1
Jász-Nagykun-Szolnok county	82.8	15.5	1.7	82.1	14.5	3.4	91.4	8.3	0.4
Bács-Kiskun county	84.3	13.0	2.8	77.8	17.0	5.2	91.6	7.8	0.6
Békés county	82.8	12.4	4.8	78.9	14.3	6.9	91.3	7.7	1.0
Csongrád county	81.2	14.6	4.1	75.7	17.6	6.7	91.3	8.0	0.7
Hungary	86.4	11.6	2.0	78.4	16.3	5.2	91.5	7.6	0.9

Source: Central Statistical Office

CONCLUSION

The most important findings of this paper could be summarised as follows:
- business organisations active in the construction industry were more affected by the economic crisis, and the boom that could be observed in the first half of the first decade of the 21st century was followed by a significant decrease, a slump in the 2010s;
- in the construction industry there is a higher proportion of companies with a lower number of employees than the average of the entire economy, and the decrease was especially large in case of larger companies;
- on the basis of an analysis of the relative figures of the registered business organisations, the outstanding role of Budapest and of Pest county could be highlighted.

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