

## DEBTS OF CITIES WITH COUNTY RIGHTS IN 2006–2010

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**Abstract:** The issue of the public debt of both the central and local government sectors is the subject of much academic and political discussion currently. Attention is especially focused on the ratio of debt to GDP and the effect of the indebtedness of local government units on investment processes. The aim of this article is to present the changes in the indebtedness of county towns ranking in Poland in the years 2006-2010, and to describe the relation between their indebtedness, on the one hand, and levels of wealth and investment spending on the other.

**Keywords:** indebtedness, investment, local government, county towns ranking

### INTRODUCTION

The issue of (national or local) government debt has been frequently discussed by academics and politicians, especially in the context of Poland's biggest cities. The debaters pay special attention to the relation between government debt and GDP as well as the impact of local government units' debts on investment processes. The major sources of financing local government investments include bank loans and funds from public placement taking place primarily in the Polish banking sector. However, Polish districts, counties and regions have increased their interest in foreign funds. In mid-2009, the share of local government foreign debt amounted to 18.2% (Świderek 2011, p. 41). Debts accumulated by local governments have been greatly affected by investments involving EU funds.

The goal of this article is to present the changes in debt amassed by Polish cities with county rights in 2006–2010 and to identify the relationship between the level of debt and affluence of cities and their capital expenses.

### THE NOTION OF DEBT OF LOCAL GOVERNMENT UNITS

Together with debts of the government sector and the social security system, debts of local government units are a part of government debt. The Act on Public

Finance<sup>1</sup> of 2009 defines government debt as the public finance sector's liability resulting from securities issued, bank loans and credits, deposits received and liabilities due by virtue of separate legal acts, legally binding court decisions or ultimate administrative decisions, as well as ones deemed indisputable by the debtor: relevant units of the public finance sector, which is the debtor. Debts of local governments should be viewed analogously to central government.<sup>2</sup> Debt consists primarily of liabilities resulting from securities issued, bank loans and credits as part of budget managing operations and financing the budget deficit. According to the above definition, debts of local governments do not include, among other things, liabilities of commercial law companies established by local governments or other organizational units with legal personality, like hospitals or cultural institutions which serve to tackle public tasks. However, when they are closed down, local governments bear the cost of financing the liabilities of the mentioned entities.<sup>3</sup>

In 2006–2010, government debt in Poland climbed from PLN 500 bln to nearly PLN 750 bln (Tab. 1). In relation to GDP, it amounted in 2010 to 52.8% and exceeded the first warning threshold referred to in the act on public finance. In Poland, public debt is generated chiefly by the government. In 2010, its debt amounted to nearly PLN 700 billion. In the period in question, the debts of local governments grew rapidly, amounting to PLN 23 bln in 2006 and as much as PLN 53 bln in 2010. Excessive government debts and continued disregard for statutory warning thresholds may negatively affect investment processes in local governments. This stems from the fact that a local government's debt tends to be investment-related<sup>4</sup> while government debt is consumption-related.

Table 1. Public debt in 2006–2010 (million PLN)

Specification	2006	2007	2008	2009	2010
Total	506 264	527 442	597 797	669 876	747 906
Government debt	477 920	500 214	566 908	623 592	692 362
Local government debt	23 283	24 483	28 115	39 325	53 525
Social security debt	5 060	2 745	2 775	6 960	2 019
Public debt in relation to GDP (%)	47.8	44.8	47.0	49.9	52.8

Source: author's own work based on annual reports on public debt in 2006–2010, Ministry of Finance

<sup>1</sup>Act of 27 August 2009 on public finance (Official Journal No. 157 item 1240 as amended).

<sup>2</sup>M. Bitner, 2010, discusses the problems accompanying the definition of government debt.

<sup>3</sup>Liabilities excluded from legal limitations related to local government debts are further discussed by M. Wiewióra, 2009.

<sup>4</sup>Arguments in favour of financing investments with return funds are presented by D.S. King (1984) and P. Swianiewicz (2004).

## CHANGES TO DEBT LEVELS OF CITIES WITH COUNTY RIGHTS IN 2006–2010

Cities with county rights are the local territorial units plagued with the highest debts in Poland. In late 2010, their debts amounted to nearly PLN 23.5 bln (Tab. 2). This equates to over PLN 1,800 per capita and represented 43.5% in relation to income levels. In the period in question, the debts of Polish cities with county rights grew by more than 100% from PLN 11.3 bln in 2006 to PLN 23.4 bln in 2010 (PLN 882.00 and PLN 1,849.00 per capita, respectively). In 2006–2008, debt ratios (in relation to budget revenues in specific years) were similar and amounted to 24–28%. In the last two years of the analysis, the ratios grew and exceeded 40%.

Table 2. Debts of cities with county rights in 2006–2010 (PLN)

Year	Total revenues	Debt	Capital expenses	Total per capita revenues	Per capita capital expenses	Per capita debt	Debt ratio (%)
2006	40 985 861 219.2	<b>11 296 200 347.0</b>	8 198 991 738.6	3,202.8	640.7	<b>882.7</b>	<b>27.6</b>
2007	46 873 425 168.9	<b>11 258 690 371.1</b>	10 326 673 529.2	3,673.0	809.2	<b>882.2</b>	<b>24.0</b>
2008	49 443 818 174.9	<b>12 775 288 120.2</b>	11 634 398 751.5	3,887.1	914.6	<b>1 004.3</b>	<b>25.8</b>
2009	50 327 507 468.9	<b>18 729 819 106.4</b>	12 913 590 823.9	3,965.3	1,017.5	<b>1 475.7</b>	<b>37.2</b>
2010	53 885 584 314.1	<b>23 437 522 580.1</b>	13 117 827 813.9	4,251.9	1,035.1	<b>1 849.4</b>	<b>43.5</b>

Source: author's own work based on annual reports on budget performance by local governments in 2006–2010, Ministry of Finance

Poland's biggest agglomerations are cities with county rights which are plagued with the largest debts (Tab. 3). In these agglomerations, the ratios approached or far exceeded 50%. In late 2010, the debts of Toruń and Wrocław even exceeded 60% of the cities' revenues in that year. Toruń's debt amounted to nearly PLN 0.5 bln (PLN 2,401.00 per capita) while Wrocław's to PLN 1.9 billion (PLN 3,083.00 per capita). Krakow and Bydgoszcz are other examples of cities which accumulated large debts. In Krakow they exceeded PLN 2 bln which represented 59.2% of the city's revenues in 2010 (PLN 2,718.00 per capita). The debt of Bydgoszcz amounted to PLN 713 mln and 58.8% (PLN 2,020.00 per capita), respectively. With respect to the total debt value, Warsaw remained the unchallenged leader with a debt amounting to PLN 5.3 bln which represented 50.7% of the capital city's revenues (PLN 3,087.00 per capita). In the five years under scrutiny, all these cities had increasing debt ratios with the biggest growth in Wrocław (from 22% in 2006 to 60.7% in 2010).

Table 3. Debts in cities with county rights in 2006 vs. 2010 (PLN)

City	2006			2010			2006/2010 debt ratio
	debt	per capita debt	debt ratio	debt	per capita debt	debt ratio	
Jelenia Góra	85 132 212.7	987.0	34.0	121 730 639.9	1 449.8	38.9	4.9
Legnica	63 387 335.0	602.7	20.9	163 710 101.2	1 578.4	47.2	26.3
Wrocław	538 953 793.4	863.6	22.1	1 924 088 612.1	3 083.1	60.7	38.6
Bydgoszcz	320 539 926.3	889.9	33.9	713 416 119.9	2 022.4	58.8	24.9
Grudziądz	100 480 991.2	1 014.7	36.3	126 620 986.8	1 290.4	35.1	-1.2
Toruń	293 042 667.9	1 448.0	51.1	481 214 498.1	2 401.3	64.8	13.6
Włocławek	155 941 456.6	1 304.3	45.4	244 505 509.5	2 085.1	53.0	7.7
Biała Podlaska	52 786 546.9	923.2	35.4	96 018 821.1	1 678.8	45.6	10.3
Chełm	60 035 398.8	882.2	36.4	95 000 000.0	1 414.4	43.0	6.6
Lublin	189 215 063.8	549.1	20.6	677 670 165.0	1 985.6	54.6	34.0
Zamość	40 097 841.0	603.8	20.5	56 603 821.2	861.0	20.5	0.0
Gorzów Wielkopolski	69 207 361.6	552.9	20.5	169 608 082.5	1 356.3	40.6	20.1
Zielona Góra	74 840 354.4	650.2	22.8	224 374 557.6	1 946.9	48.0	25.2
Łódź	697 424 414.3	923.2	33.1	1 327 178 453.6	1 812.2	52.1	19.0
Piotrków Trybunalski	75 150 056.6	949.7	34.0	119 417 740.5	1 534.6	40.1	6.1
Skierniewice	25 219 450.3	515.9	20.2	37 733 923.1	770.0	21.7	1.5
Kraków	1 253 603 819.7	1 706.7	53.9	2 003 875 563.4	2 718.6	59.2	5.3
Nowy Sącz	50 653 903.6	598.0	18.9	93 009 748.0	1 098.2	25.5	6.6
Tarnów	133 003 044.3	1 151.0	39.9	231 179 167.8	2 024.9	47.5	7.6
Ostrołęka	39 455 894.3	736.4	22.7	46 817 819.2	876.7	22.5	-0.3
Płock	164 995 704.3	1 306.8	30.5	323 704 687.8	2 595.3	52.7	22.1
Radom	77 726 465.9	342.6	13.3	338 254 356.6	1 513.7	41.6	28.3
Siedlce	68 026 874.3	894.2	32.6	125 973 677.8	1 649.6	39.0	6.4
Warszawa	2 551 568 462.5	1 507.2	29.8	5 291 391 319.3	3 087.7	50.7	20.9
Opole	72 652 754.3	589.2	15.4	179 896 194.4	1 478.3	33.3	17.9
Krosno	46 023 006.0	956.2	26.4	84 461 342.9	1 773.0	38.2	11.9
Przemyśl	45 772 518.2	685.6	23.9	89 944 609.2	1 370.0	29.1	5.2
Rzeszów	162 680 325.1	1 031.6	31.4	268 325 096.9	1 555.1	38.4	7.0
Tarnobrzeg	47 210 809.3	940.5	35.2	72 386 959.2	1 461.0	29.8	-5.4
Białystok	207 372 695.2	710.5	28.0	419 348 380.7	1 431.5	33.3	5.3
Łomża	16 783 623.7	266.8	9.0	48 178 926.5	769.4	19.4	10.4
Suwałki	81 811 776.3	1 179.8	40.4	116 211 657.8	1 671.9	39.1	-1.3

Gdańsk	297 160 453.2	658.0	20.5	858 808 794.0	1 900.1	42.3	21.8
Gdynia	194 373 381.1	774.5	25.2	448 419 844.8	1 814.1	43.0	17.7
Słupsk	92 258 516.2	942.8	28.1	182 631 868.8	1 899.2	48.5	20.3
Sopot	15 549 685.7	396.4	7.0	92 385 702.0	2 453.9	27.9	20.9
Bielsko-Biała	74 793 692.4	424.6	14.8	203 567 953.2	1 165.0	29.9	15.1
Bytom	10 503 105.5	56.1	2.4	111 917 658.7	612.7	18.2	15.8
Chorzów	67 536 572.0	592.2	23.0	69 711 742.0	618.5	19.3	-3.8
Częstochowa	227 056 450.5	935.8	34.7	366 394 170.0	1 548.3	44.7	10.0
Dąbrowa Górnicza	50 356 746.6	388.0	12.7	48 762 120.1	381.6	9.4	-3.3
Gliwice	19 000 138.7	97.1	3.2	7 234 734.0	37.6	0.9	-2.2
Jastrzębie-Zdrój	47 327 253.0	494.3	21.0	2 900 000.0	31.0	0.8	-20.2
Jaworzno	21 712 372.4	225.7	8.9	127 756 621.3	1 340.8	35.5	26.6
Katowice	162 021 276.9	517.3	15.1	296 087 014.4	969.3	22.2	7.1
Mysłowice	63 164 358.7	840.3	33.6	59 726 312.0	796.0	26.1	-7.5
Piekary Śląskie	28 302 353.6	475.7	22.2	60 590 161.9	1 037.0	35.5	13.4
Ruda Śląska	133 493 282.9	914.4	29.3	227 701 248.9	1 588.3	47.5	18.2
Rybnik	121 766 703.6	858.9	26.7	187 305 157.4	1 321.3	31.8	5.1
Siemianowice Śląskie	52 313 602.0	722.6	30.2	82 184 859.0	1 163.0	37.9	7.6
Sosnowiec	70 321 675.6	313.2	13.8	158 467 423.7	727.9	25.6	11.8
Świętochłowice	28 740 762.5	521.6	22.9	43 071 537.3	797.6	32.0	9.1
Tychy	15 053 517.4	114.9	4.3	199 642 630.6	1 535.2	35.7	31.4
Zabrze	64 783 252.8	340.2	13.5	251 230 024.1	1 341.6	31.9	18.5
Żory	59 681 069.7	947.9	41.7	138 039 919.2	2 215.9	56.5	14.8
Kielce	122 962 496.7	595.8	21.2	250 602 938.4	1 235.8	27.3	6.1
Elbląg	100 974 345.3	794.8	27.3	153 026 615.4	1 215.7	31.7	4.4
Olsztyn	121 653 385.9	720.8	23.9	261 651 400.1	1 540.2	39.0	15.1
Kalisz	54 076 215.0	500.7	18.4	180 040 358.4	1 695.6	43.8	25.4
Konin	42 385 660.7	525.3	15.0	89 162 025.1	1 127.3	26.3	11.3
Leszno	79 300 000.0	1 246.6	39.9	126 989 731.8	1 988.2	48.2	8.3
Poznań	637 395 345.6	1 151.4	36.5	1 174 137 636.8	2 162.4	48.1	11.6
Koszalin	57 768 414.9	546.8	20.7	131 847 512.3	1 243.8	36.7	16.0
Szczecin	240 315 726.0	598.6	22.9	474 127 516.0	1 192.4	36.9	13.9
Świnoujście	61 301 986.3	1 506.6	37.4	59 547 809.3	1 461.9	31.9	-5.5

Source: author's own work based on annual reports on budget performance by local governments in 2006–2010, Ministry of Finance

The cities with county rights enjoying the smallest debts were located in the south and east of Poland. In 2010, only in three cities did the debt ratio not exceed 10%. The debt of Jastrzębie Zdrój amounted to PLN 2.9 mln which represented 0.8% of the city's revenues (PLN 31.00 per capita). Equally small ratios were enjoyed in Gliwice (PLN 7.2 million i.e. 9% and PLN 37.6 per capita). On the other hand, the debt ratio for Dąbrowa Górnicza was 9.4% with debt amounting to PLN 48.1 mln (PLN 381.6 per capita). In all these cities the debt ratio decreased against 2006 by several to over a dozen percentage points. In three other cities: Bytom, Chorzów and Łomża it exceeded 20% at several dozen million zloties of debt.

### DEBTS VERSUS AFFLUENCE OF CITIES WITH COUNTY RIGHTS

In 2006 and 2010, there was a positive and statistically significant correlation between the debts of cities with county rights and their affluence (defined by means of total revenues per capita)<sup>5</sup> (Fig. 1 and 2).

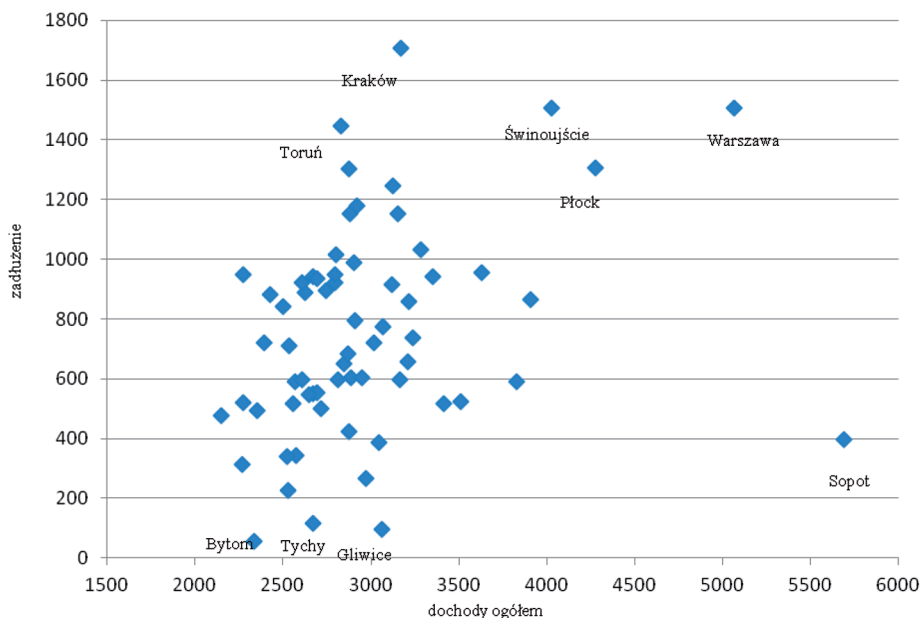


Fig. 1. The correlation between debts of cities with county rights and total (per capita) revenues in 2006

Source: the author's own development

<sup>5</sup> In the research, the adopted significance level  $p < 0.05$ .

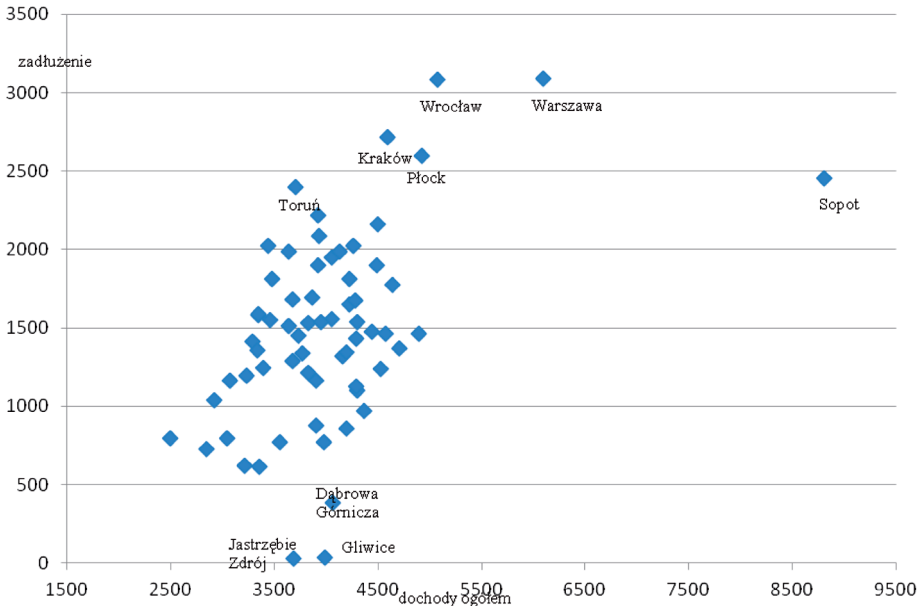


Fig. 2. The correlation between debts of cities with county rights and total (per capita) revenues in 2010

Source: the author's own development

In 2006, the correlation coefficient between the debt and total revenues per capita amounted to  $r = 0.31$  ( $p < 0.05$ ). While it was statistically vital, the value was relatively small. This resulted from several deviations from the standard. First and foremost, in 2006 the city of Sopot enjoyed a small per capita debt of PLN 400.00 with very good revenues (nearly PLN 6,000.00 per capita) far above the average for all cities with county rights. On the other hand, in Krakow the average level of total revenues (approx. PLN 3,000.00 per capita) was accompanied by a large debt exceeding PLN 1,600.00 per capita. While Gliwice enjoyed total revenues similar to those in Krakow the city's debt was much smaller and did not exceed PLN 100.00 per capita. Similar debt levels were recorded in Bytom and Tychy with revenues exceeding PLN 2,500.00.

In 2010, the correlation between a city's affluence and its debt grew to  $r = 0.49$  ( $p < 0.05$ ). This confirms the rule from 2006 that increased revenues of cities with county rights are accompanied by accumulating debt. 2010 marked a distinct growth in Sopot's debt (almost PLN 2,500.00 per capita). In cities like Warsaw, Wrocław and Płock with above average total revenues, the accumulated debts are big and exceed PLN 2,500.00 per capita. On the other hand, Gliwice, Jastrzębie Zdrój and Dąbrowa Górnicza are exceptions, with per capita revenues amounting to approximately PLN 4,000.00 and debts much smaller than in cities with similar revenues.

## DEBT VERSUS CAPITAL EXPENSES IN CITIES WITH COUNTY RIGHTS

There was a positive, albeit statistically not very high, correlation between debts of cities with county rights and capital expenses (Fig. 3 and 4). This indicates that as capital expenses grow in general so do cities' debts.

In 2006, the correlation coefficient amounted to  $r = 0.31$  (significant at  $p < 0.05$ ). Cities with big debts (exceeding PLN 1,400.00 per capita) including Krakow Warsaw, Świnoujście and Toruń had average levels of capital expenses (approx. PLN 800.00 per capita). In that year, Płock, Konin and Opole were the cities with the highest capital expenses (over PLN 1,300.00 per capita). However, only Płock had a big debt (PLN 1,300.00 per capita). In the remaining two cities, it did not exceed PLN 600.00 per capita. Small capital expenses were reflected in Bytom's equally small debts.

In 2010, the correlation coefficient of debt and capital expenses grew slightly ( $r = 0.39$ , significant at  $p < 0.05$ ). Sopot had very heavy capital expenses (PLN 5,552.00 per capita) which contributed to the city's distinctly increased debt (PLN 2,453.00 per capita). In the remaining cities with county rights, capital expenses were definitely smaller. However, an increase in capital expenses to near-

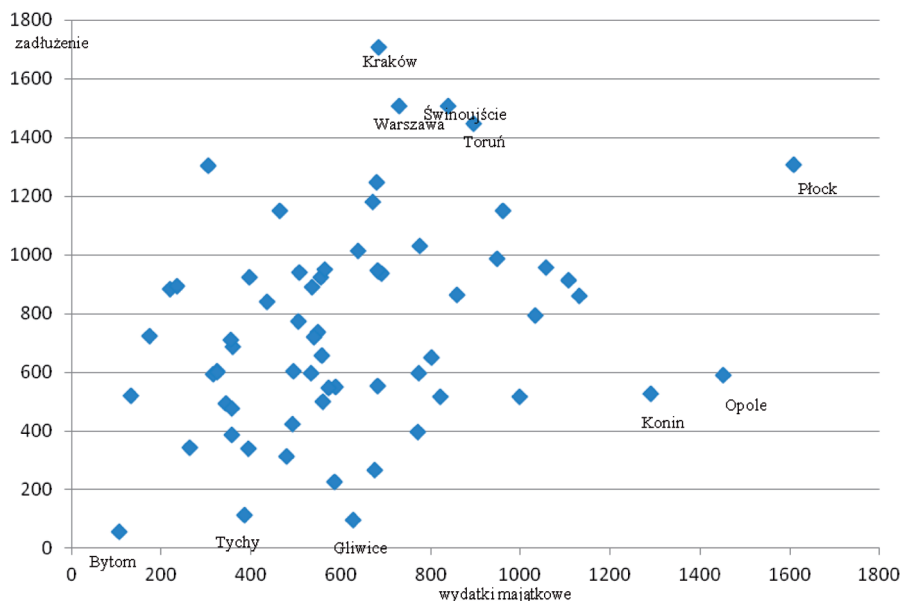


Fig. 3. The correlation between debts of cities with county rights and capital expenses in 2006 (PLN per capita)

Source: the author's own development



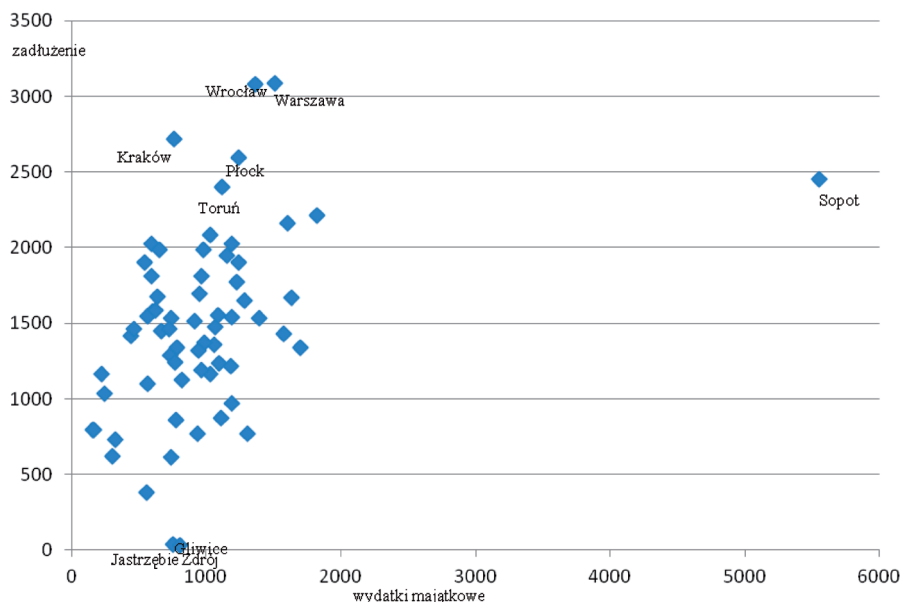


Fig. 4. The correlation between debts of cities with county rights and capital expenses in 2010 (PLN per capita)

Source: the author's own development

ly PLN 1,500.00 per capita in Wrocław and Warsaw involved debts climbing up to over PLN 3,000.00 per capita.

## SUMMARY

Among local government units in Poland, cities with county rights have accumulated the largest debts. In late 2010, they amounted to PLN 23.5 bln (the total debt of local governments in Poland amounted to PLN 53.5 billion). This represented 43.5% of the cities' total revenues in 2010. The country's biggest cities are accumulating their debts at an alarming rate: in 2006–2010 they increased by more than 100% from PLN 11.3 billion to PLN 23.5 billion.

As a result of numerous infrastructural investments in Poland's biggest agglomerations, Toruń, Wrocław, Krakow and Bydgoszcz have the largest debts with respect to total revenues generated. On the other hand, cities located in southern and eastern Poland (Jastrzębie Zdrój, Gliwice, Dąbrowa Górnicza, Łomża) tended to have the lowest debt ratios.

There was a positive, albeit statistically not very high, correlation between debts of cities with county rights, their affluence and capital expenses. The

correlation coefficients indicate that cities with larger total revenues and heavier capital expenses tended to accumulate larger debts.

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