# From the research on the usage of bank loans in investment activity financing by business entities in Poland in years 2005-2009

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#### **Abstract**

From the research conducted by the authors it stems that business entities in Poland utilise to a greater extent credits in financing expenditures on fixed assets, rather than expenditures onto long-term financial assets or intangible assets. In the period under examination, the share of funds originating from domestic loans in financing expenditures for fixed assets increased from 7.54% in 2005 up to 12.69% in 2007, a then, in a down-turn 2008, it slightly went down. Despite the fact that in 2009 the value of these loans was lower by 8.6% when compared on the preceding years, their share still somewhat increased, which should be attributed to the limitation of investment activity in the said period. Such situation undoubtedly resulted from persisting unstable economic situation in Poland and worldwide.

### **Key words**

Financing of investment, bank loans

JEL Classification: G31, O16

### 1. Introduction

The subject matter of the research the results of which have been presented in this article was the funding of investment activity at medium and large<sup>2</sup> business entities in Poland in the years 2005-2009. The research was conducted based on the statistical data provided by the Central Statistical Office (Główny Urząd Statystyczny, GUS) regarding this group of business entities. Statistical data pertaining to investment in fixed assets, long-term financial assets as well as intangible and legal assets, and the sources of funding of them, were classified in accordance with the ownership sectors divided into the following:

- public sector comprising state property (State Treasury and state legal entities), territorial self-government property and 'mixed property' dominated by the capital of public sector entities,
- private sector comprising domestic private property (natural persons and other private entities), foreign property (foreign natural persons), and 'mixed property' dominated by the capital of private sector entities and no sectoral domination in the entity' capital [GUS 2009, p. 12].

The purpose of the article is to provide answers to the following questions:

1) To what extent do the business entities researched into utilise domestic and foreign bank credits to finance investments in fixed assets?

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<sup>&</sup>lt;sup>2</sup> The data regard business entities with more than 49 persons working.

2) During the period covered by the research, did there take place any significant changes with respect to the use of those sources of funding by the business entities researched into?

## 2. Investment activities conducted by the examined group of business entities in the years 2005-2009

In the analysed years, the business entities researched into appropriated majority of investment expenditures to fixed assets. Only the year 2006 was an exception when the public sector entities spent slightly more resources (53%) on investments in financial assets. During all those years, investments in intangible and legal assets constituted approx. 3-4% of all the investments. Data provided by the GUS (Table 1 and Fig. 1) show that in the years 2005-2005 the examined business entities were observed to have significantly increased investments in fixed assets, long-term financial assets as well as intangible and legal assets (with most of those investments further referred to as investment expenditures). The rate of increase of those expenditures was not uniform. The highest increase of expenditures on fixed assets was recorded in 2007 and amounted to 27.5% as compared to the preceding year. In the case of expenditures on long-term financial assets there was observed an increase in the years 2005-2008; however, the dynamics in 2007 was definitely lower when compared with 2006 and 2008. In the years 2005-2008 there also took place an increase of expenditures on intangible and legal assets; still, the data show that the highest increase of those expenditures was reached in 2006.

Specification	2005	2006	2007	2008	2009
Total, of which:	161 112	185 204	216 132	241 952	194 130
Fixed assets outlays	81 942	90 947	115 923	127 858	112 467
Long-term financial assets	74 810	88 463	93 395	107 047	73 802
Intangible fixed assets	4 360	5 794	6 814	7 047	7 861
Public sector	48 362	50 252	55 724	61 643	68 039
Private sector	112 750	134 952	160 408	180 309	126 091

Table 1: Expenditures on fixed assets, long-term financial assets, intangible and legal assets within the examined group of business entities in the years 2005-2009 (in million PLN) Source: Data provided by the GUS.

In 2009 (as compared to the preceding year) the business entities researched into featured a decrease of expenditures on fixed assets and long-term financial assets with an observed increase of expenditures on intangible and legal assets. The decrease of expenditures on fixed assets was undoubtedly a result of an unstable situation on financial markets and uncertainty as to the economic development in Poland and abroad. The situation of companies was certainly also affected by the low rate of growth of the domestic demand [NBP (Narodowy Bank Polski – the National Bank of Poland) 2010, pp. 22-24].

Dynamics of expenditures on fixed assets made by the examined entities reflects the economic situation in Poland. During the analysed period, the highest rate of growth of the GDP in Poland was recorded in 2007 while the lowest – in 2009. It ought to be noted that the rate of growth of the GDP during that period in Poland was higher when compared with other

countries, also the Euro-zone countries. In 2009, the Euro-zone countries recorded a negative rate of economic growth <sup>3</sup>.

200 fixed assets 180 160 % long-term financial 140 assets 120 intangible and legal 100 assets 2006 2007 2008 2009

Figure 1: Dynamics of investment expenditures made by the examined group of business entities in the years 2005-2009 (2005 = 100%)

Source: Own study based on data provided by the GUS.

When analysing investment expenditures made by both public and private sector business entities one ought to note their differing behaviour in that respect in 2009. As far as in the public sector there was an increase of expenditures on both fixed assets, long-term financial assets and intangible and legal assets, in the case of the private sector there was recorded a decrease of expenditures on fixed assets and long-term financial assets as compared to the preceding year.

### 3. Research results

The research conducted by the authors [Kuczowic 2007, 2011] shows that investment activities conducted by the analysed groups of business entities in Poland in the years 2005-2009 was primarily financed with their own resources. Nevertheless, it ought to be noted that the entities researched into invest their own resources in long-term financial assets or intangible and legal assets to an extent greater than in the case of financing expenditures on fixed assets. This means that the examined entities to a greater extent utilise credit banks when financing expenditures on fixed assets.

The data contained in Table 2 show that in the years 2005-2009 the indebtedness of the examined business entities due to the domestic bank credits contracted to finance expenditures on fixed assets more than doubled. In the years 2006-2007 the rate of growth of credits contracted to finance expenditures on fixed assets within the group of entities researched into was very high and amounted to 68.2% in 2006 (as compared to 2005) and 41.5% in 2007 (as compared to 2006). It ought to be noted that the rate of increase of indebtedness due to domestic credits<sup>4</sup> contracted to finance expenditures on fixed assets within the group of

<sup>&</sup>lt;sup>3</sup> The rate of growth of the GDP in Poland in the analysed period amounted to: 3.6% (2005); 6.1% (2006); 6.8% (2007); 5.0% (2008); 1.7% (2009). The rate of growth of the GDP in the Euro-zone: 1.7% (2005); 2.9% (2006); 2.8% (2007); 0.6% (2008); -4.1% (2009) [UKNF 2007, p. 3, UKNF 2010, p. 17].

<sup>&</sup>lt;sup>4</sup> Presenting the problem of a high dynamics of the value of credits contracted by enterprises in Poland during the period analysed it ought to be noted that it partially results from the low ,banking penetration ratio of the Polish economy as compared to the other European Union countries. In

entities researched into in the years 2006-2007 was clearly higher than the rate of increase of expenditures on those assets. This contributed to an increase of credits participation in financing expenditures on fixed assets during that period.

Specification	2005	2006	2007	2008	2009
Total	6180 693	10393 692	14711 414	14736 609	13468 251
Public sector	915 020	1495 048	2266 195	2249 807	3319 065
State ownership	467 301	532 872	484 129	640 294	267 012
Local self-government enitities' ownership	319 431	553 125	825 480	1025 794	1982 401
Mixed ownership	128 288	409 051	956 586	583 719	1069 652
Private sector	5265 673	8898 644	12445 219	12486 802	10149 186
Private domestic ownership	3147 588	6202 728	8730 053	8741 766	5275 661
of which co-operativ's ownership	233 057	330 262	343 243	249 155	197 917
Private foreign ownership	1647 208	2034 941	3190 491	3296 421	2788 492
Mixed ownership	470 877	660 975	524 675	448 615	2085 033

Table 2: Financing of expenditures on fixed assets with domestic bank credits by Polish business entities in the years 2005-2009 (in thousand PLN)

Source: Data provided by the GUS.

In 2008 the level of indebtedness of the examined business entities arising from bank credits may have been affected by the strong impairment of the Polish zloty exchange rate that occurred in the second half of that year. As shown by the data provided by the NBP, depreciation of the Polish zloty did not have so significant an impact on the total value of credits for enterprises as credits in foreign currencies have a much smaller share in their structure (24.3%) than in the structure of credits for households (40.4%). Depreciation of the Polish zloty most of all increased the value of export credits 97% of which are foreign currency credits [NBP 2010, p. 84].

Due to absence of information pertaining to the participation of foreign currency credits in financing expenditures on fixed assets within the examined group of business entities it is difficult to unambiguously determine what part of the increase of the value of debt may be attributed to the depreciation of the Polish zloty<sup>5</sup>.

Depreciation of the Polish zloty did affect the increase of the value of debt (in Polish zlotys) due to credits contracted by business entities having their liabilities denominated in foreign currencies. On the other hand, however, depreciation of the Polish zloty also affected improvement of competitiveness of domestic business entities both on domestic and foreign markets.

Inhibition of the rate of growth of the value of domestic credits in 2008 and their decrease in 2009 was primarily a result of reduction of investment activity by the business entities researched into, but to a certain extent it was also affected by the stricter criteria of applied by banks to granting credits.

In 2009 the value of domestic credits involved in the financing of expenditures on fixed assets by business entities in Poland was lower as compared to the preceding year by 8.6%; however, attention ought to be paid to varying behaviours of public sector entities and of private sector entities that year. As far as in 2009 the private sector recorded a decrease of the

Poland the share of credits in the GDB amounted to barely 40% while in the European Union it exceeded 100%. [UKNF 2008, p. 37]

<sup>&</sup>lt;sup>5</sup> The data provided by the NBP indicate that during the period from 30 June 2008 to 31.12.2008 the Polish zloty depreciated as compared to euro by 23.8%, to the level of 4.1490. At the same time the value of foreign currency credits for enterprises increase by 25 billion PLN, out of which 10 billion may be attributed to the depreciation of the Polish zloty [NBP 2010, p. 27]

value of utilised domestic bank credits by 18.7% as compared to 2008, the public sector at that time recorded a significant increase of it (by 47.5%). It was a result of a significant growth of the value of domestic credits contracted by business entities classified as 'property of territorial self-government units' and 'mixed property dominated by the public sector'. Reasons for increasing investment of resources originating from domestic credits ought to be sought in the increase of expenditures on fixed assets that were made by both groups of business entities in 2009<sup>6</sup>. In 2009 within the state property group of business entities the value of the domestic bank credits invested was 58.3% lower than in 2008. However, that group of entities, unlike the other groups of public sector business entities, reduced its investments in fixed assets in 2009 by 29.9% as compared to the preceding year. Hence the demand for funding with external sources was smaller than in the preceding year.

In the private sector worth attention is the rapid increase of investment of resources originating from domestic credits by business entities classified as 'mixed property dominated by the private sector'. The value of domestic credits contracted to finance fixed assets in 2009 within that group was more than 4 times higher than in the preceding year. It ought to be noted that investments in fixed assets made by that group of business entities in 2009 were definitely lower than in the preceding years. Within the other groups of private sector business entities the value of the domestic bank credits invested to finance fixed assets was definitely lower than in the preceding year.

Specification	2005	2006	2007	2008	2009
Total	1610058	1354195	2482647	2964488	4814741
Public sector	270465	222512	698574	1440705	2416954
State ownership	171583	185077	82195	49214	239619
Local self-government enitities' ownership	96642	2128	29258	24072	45261
Mixed ownership	2240	16307	587121	1367419	2132074
Private sector	1339593	1131683	1784073	1523783	2397787
Private domestic ownership	78881	134416	262048	127277	218058
of which co-operativ's ownership	1	-			
Private foreign ownership	1063026	879742	1415668	1079355	1671850
Mixed ownership	197686	117525	106357	317151	507879

Table 3: Financing of expenditures on fixed assets with foreign bank credits by Polish business entities in the years 2005-2009 (in thousand PLN)

Source: Data provided by the GUS.

In the funding of investment activity the business entities researched into also use bank credits from abroad. The data contained in Table 3 show that the value of invested resources originating from foreign bank credits in the years 2005-2009 nearly tripled. The increase of indebtedness of the examined business entities arising from bank credits contracted abroad must have been affected by the strong impairment of the Polish zloty exchange rate in the second half of 2008 and its continuation until March 2009.

One ought also to note the significant diversification observed in the case of utilisation of this source of funding by individual groups of business entities. Within the public sector, foreign bank credits are most frequently utilised by business entities classified as 'mixed property'. The data contained in the table show that in the years 2005-2009 the value of foreign bank credits invested by that group significantly increased. Prior analyses showed that in the next years the value of domestic credits contracted by that group of entities also

<sup>&</sup>lt;sup>6</sup> The data provided by the GUS indicate that expenditures on fixed assets made by territorial self-government business entities were 38.7% higher than in the preceding year, whereas in the group of entities classified as ,mixed property dominated by the public sector 'it was 25.9% higher.

significantly increased. It ought to be noted that in the years 2008-2009 the value of foreign credits was approx. twice as high as compared with the value of contracted domestic credits.

Within the private sector, foreign bank credits are most frequently utilised by business entities classified as 'foreign private property'. Interest in this type of credits among business entities classified as 'domestic private property' is insignificant, while co-operatives – as the data show – do not utilise this source of funding at all.

The increase of the value of both domestic and foreign bank credits contracted to finance expenditures on fixed assets contributed to an increase of the participation of those sources in financing expenditures on fixed assets made by the examined group of business entities. The greatest participation of resources originating from domestic bank credits in financing expenditures on fixed assets in the analysed period was recorded in 2007 and amounted to 12.7%. In 2009, despite a decrease of the value of the credits contracted by 8.6% as compared to the preceding year, their participation even slightly increased (as compared to 2008). This ought to be attributed to the reduced investment activity during that period and to the reduced involvement of own resources in financing expenditures on fixed assets. Undoubtedly, it was a result of the continuing unstable economic situation in Poland and abroad.

### 4. Conclusions

The examined business entities primarily use the bank credit to finance expenditures on fixed assets. To a lesser extent they utilise the credit to finance expenditures on long-term financial assets and on intangible and legal assets. This trend appears to have been growing in the recent years. Participation of bank credits in financing investment expenditures made by the business entities researched into increased in the period analysed from 7.5% in 2005 to 12% in 2009. This applies to both the public sector and the private sector. One of the most important reasons for that is the significant level of support to the investment activity of the Polish entities with aid from the European Union. The need to involve one's own resources in investments supported with EU funds demanded that the investors obtain bank credits. This is especially apparent in the case of investments made by entities classified as 'territorial self-government units' property' in which participation of domestic credits in financing expenditures on fixed assets amounted to 17.9% in 2009. Slightly more complicated are the reasons for an even greater increase within mixed property entities dominated by the private sector (22.5%).

The data provided by the GUS show that the analysed business entities utilise both domestic and foreign bank credits, subject to the fact that resources from domestic credits were utilised to a greater extent. The research conducted shows that in the years 2005-2009 the examined group of business entities featured an increase of the value of both domestic and foreign bank credits invested in the funding of expenditures on fixed assets. Nevertheless, clear is the tendency to gradually increase the role of the foreign credit in that respect. Utilisation of the domestic credit in the researched period more than doubled and utilisation of the foreign credit nearly tripled. Still, due to the depreciation of the Polish zloty in the years 2008-2009 and, consequently, the increase of the value of debt (in Polish zlotys) due to the credits contracted, one cannot yet forejudge as to the persistence of this tendency.

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