

PIRAEUS BANK



Small and Medium Sized Entrepreneurship: Revision of Sectoral Performance Rating System



Ilias Lekkos
Paraskevi Vlachou

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We continue to systematically monitor the sectoral performance of small and medium sized enterprises (SMEs) through the BIC Index and the BIC Rating System. Based on a sample of over 19,000 small and medium sized corporations from all sectors of economic activity, **in 2017, the small and medium sized entrepreneurship continued to track positive performance.**

For the general index of overall sectoral performance, **BIC Index recorded a new high level** at 44.4 points in 2017 from 43 in 2016. The improvement came from a **better** performance in average **liquidity** and **capital structure**. However, the average **efficiency** of SMEs, which reflects their profitability, was nearly **stable** in 2017 compared to 2016.

At this point, we would like to make two qualifications regarding our findings. First, we are aware of the survivorship-bias that has likely affected our results, as the weakest corporations are eliminated from our sample and only the ones with the best balance sheet structure and management skills survive. Second, the requirements for the publication of financial statements have been relaxed, which may skew the sample toward the high-quality end of the Greek corporate spectrum.

A new element of this year's edition is the **revision of the sectoral performance of the SME rating system, and we introduce the BIC Rating System v. 1.02.** The previous version was based on observations of the period 2007-2012, which included both years of growth and recession. Since then, the Greek economy and entrepreneurship underwent phases of recovery; however, it also faced the implementation of capital controls. **Wanting to incorporate the developments of Greece's economic cycle since 2012,** we are led to review the thresholds of the BIC Rating System. Therefore, we continue to assess the performance of a sector both at a cross-sectoral level and a time level through a **fixed but revised quantitative frame of reference.**

According to the new sectoral rating system (BIC Rating System v. 1.02), **in 2017, the average cross-sector rating remained "a-", as in 2016,** the best rating since the BIC Index was first compiled in 2007.

Among the **top performers in 2017,** once again were the tourism-related sectors, such as water transport (i.e., passenger ferries) (50) and food and beverage service (56). Quarrying and mining (B) retained the improved average performance of the previous year. On the other hand, **low performers** included leisure-related sectors, such as arts and entertainment (R) and mass media (59+60), as well as air transport (51), the wood industry (16), and the manufacture of furniture (31).

1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

4. Appendices

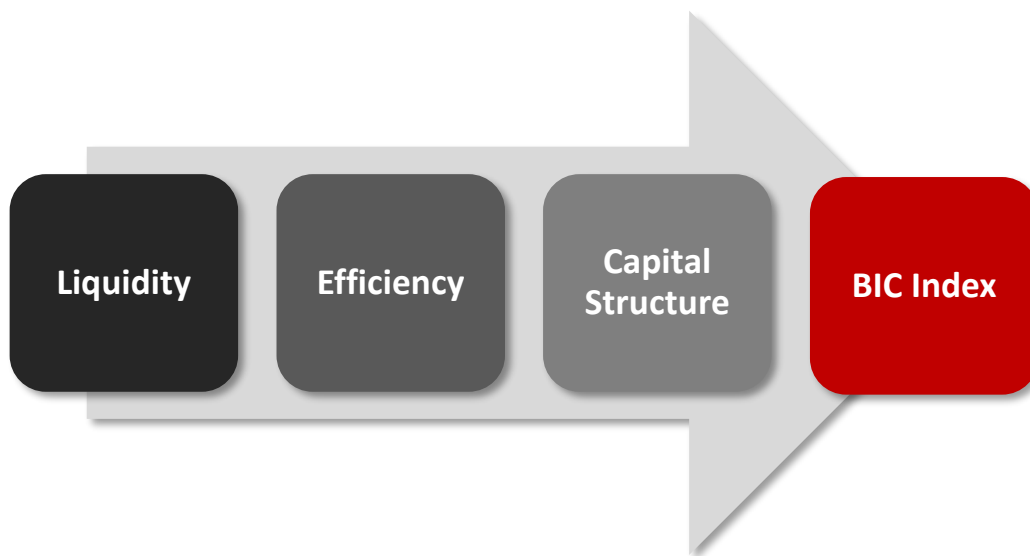
4a. Methodology of calculating BIC Index

4b. Methodology of calculating BIC Rating System v. 1.02

4c. Additional presentation of results; 2017

The BIC Index is the main analytical tool used to carry out analysis and ranking of business sectors, with emphasis on SMEs.

Initially, the performance of each sector of economic activity is evaluated along three axes, which summarize the **key dimensions of measuring** entrepreneurial activity, namely **liquidity, efficiency** and **capital structure**.



Thereafter – in order to facilitate the drawing of robust conclusions – these three dimensions are used to **compile an overall sectoral performance index** which we call the **Best in Class (BIC) Index**.

Based on the score of each sector in the BIC Index, we are able to assess and rank the performance of the 50 most essential sectors of the Greek economy from 2007 to 2017.

Note: For more about the methodology adopted for calculating the BIC Index, please see Appendix 4a.

When we first developed the BIC Rating System in 2014*, we examined the period 2007-2012, which included both years of growth and recession with a corresponding impact on the financial results of enterprises.

Since then, the Greek economy and entrepreneurship underwent phases of recovery, yet also faced the implementation of capital controls. **Wanting to incorporate the developments of Greece's economic cycle since 2012**, we are led to review the thresholds of the BIC Rating System. Therefore, we continue to assess the performance of a sector both at a cross-sectoral level and a time level through a **fixed but revised quantitative frame of reference**.

Therefore, we present the new rating system (BIC Rating System v. 1.02), which is based on the BIC Index scores 2007-2017.

According to this system, each sector is ranked on a 12-grade rating scale. **Any improvement or decline in the BIC Index score of each sector from year to year is reflected by a corresponding upgrade or downgrade of the specific sector.**

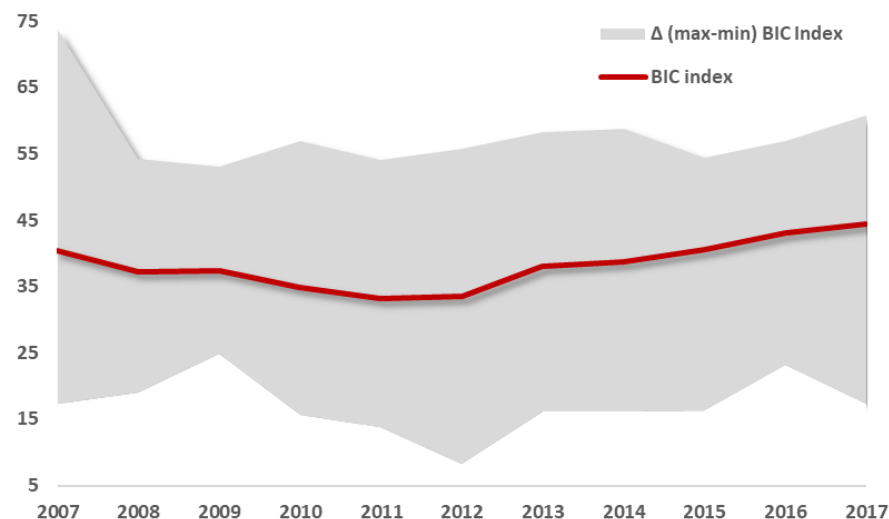
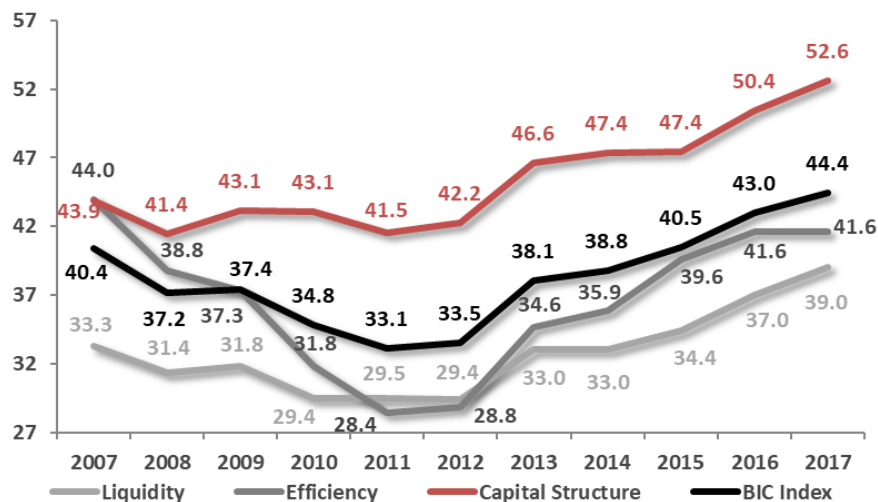
BIC Rating System v. 1.02

Score range	Score	Rating	BIC Index Performance
≥43	≥64	a+	outperformers
	[53-64)	a	
	[43-53)	a-	
39-43	[42-43)	b+	good performers
	[40-42)	b	
	[39-40)	b-	
34-39	[38-39)	c+	medium performers
	[35-38)	c	
	[34-35)	c-	
<34	[26-34)	d+	underperformers
	[16-26)	d	
	<16	d-	

Note: For more about the motivation for review and the methodology adopted for calculating the BIC Rating System v. 1.02, please see Appendix 4b.

* [Rating of sectoral performance 2007-2012: BIC Rating System](#), Piraeus Bank, July 2014.

- Domestic SMEs seem to be far away from the low performance during the deep recession of 2011-2012 and have continued to improve at a new high level, 44.4 points in 2017 from 43 in 2016 based on the BIC Index.
- Nevertheless, the 2017 sectoral performance (as reflected by the sectoral BIC score) was less concentrated around the mean than 2016.
- SMEs that survived the crisis continued to improve their capital structure and to enhance their liquidity.
- However, the average efficiency of SMEs, which reflects their profitability, was nearly stable in 2017 compared to 2016, while it did not yet reach the average level of 2017, even though the average liquidity and capital structure overcame it.



The sectors with the strongest performance, 2017

27	Manufacture of electrical equipment
50	Water transport
32	Other manufacturing
B	Mining and quarrying
30	Manufacture of other transport equipment
M	Professional, scientific and technical activities
E	Water supply; sewerage etc.
33	Repair and installation of machinery and equipment
25	Manufacture of fabricated metal products
56	Food and beverage service

- Once again, sectors related to tourism, such as water transport (50) and food and beverage service activities (56) were among the highest performers in 2017.
- Manufacturing sectors related to equipment, such as the manufacture of electrical equipment (27), the repair and installation of equipment (33), and the manufacture of metal products (25) continued to rank among top performers in 2017. Moreover, the sector of the manufacture of other transport equipment (30) also recorded high performance.
- Finally, quarrying and mining (B) retained the improved average performance of the previous year.

The sectors with the weakest performance, 2017

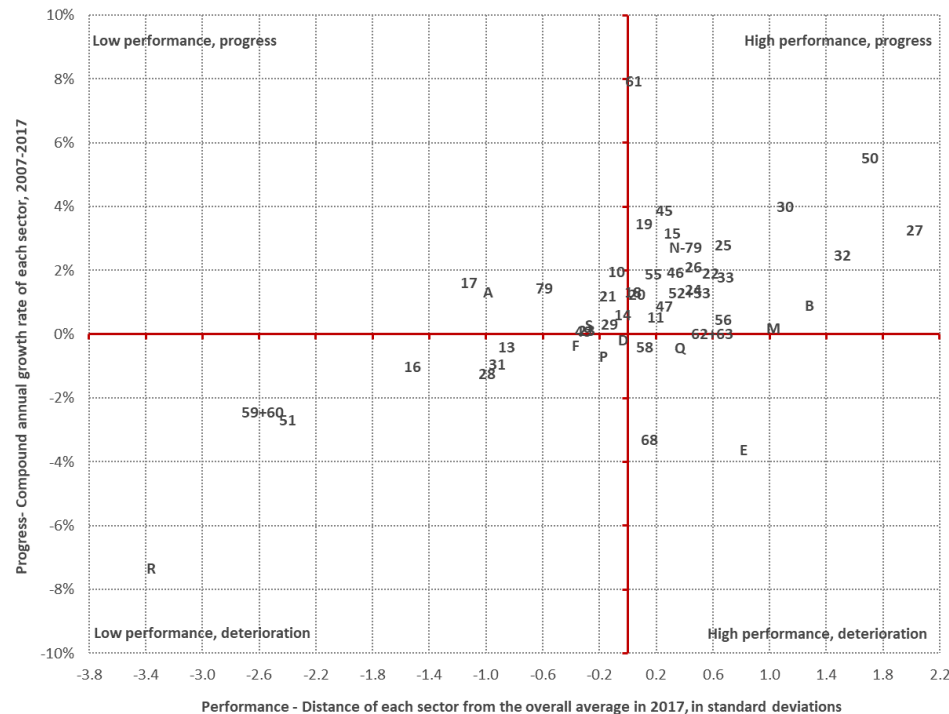
R	Arts, entertainment and recreation
59+60	Motion picture, music publishing activities, media etc.
51	Air transport
16	Manufacture of wood etc.
17	Manufacture of paper etc.
28	Manufacture of machinery and equipment n.e.c.
A	Agriculture, forestry and fishing
31	Manufacture of furniture
13	Manufacture of textiles
79	Travel agency etc.

- Sectors of leisure, such as arts and entertainment (R) and mass media (59+60) continued to be among the lowest performers.
- Respectively, low performance continued for the wood processing sectors, in particular for the wood industry (16) and the manufacture of furniture (31).
- The performance of the agricultural sector (A) remained low.
- At the same time, the manufacture of paper (17) and of textiles (13) were among the lowest performers in 2017.
- Despite improved liquidity, the previously low performance of efficiency and capital structure of air transport (51) continued to decline. As a result, the average score lowered in 2017, and the sector ranked among the ten lowest positions.
- Finally, travel agencies (79) were in the low performers in 2017, not because their average performance deteriorated, but because there were better performing sectors.

BIC Index 2007-2017: Sector performance and development



- 72% of sectors improved their average performance in 2017 compared to 2007, as reflected by their BIC Index scores.
- 52% of sectors exceeded average performance and, at the same time, improved during the period from 2007-2017.
- Water transport (50), other manufacturing (32), and the manufacture of electrical equipment (27) combined high performance and score improvement.
- On the other hand, the sectors of mass media (59+60), arts and entertainment (R), and air transport (51) continued to have very low performance, and, at the same time, their score deteriorated significantly in 2017 compared to 2007.
- The BIC Index score of water supply, etc. (E) declined in 2017 compared to 2007, recovering from the previous year and remaining higher than the average performance.
- Finally, the performance of telecommunications (61) was very close to average; however, in 2017 compared to 2007, it recorded the highest improvement among the sectors.



BIC Rating System v. 1.02: in 2017, the average cross-sector rating remained “a-”, as in 2016 – the best rating since 2007

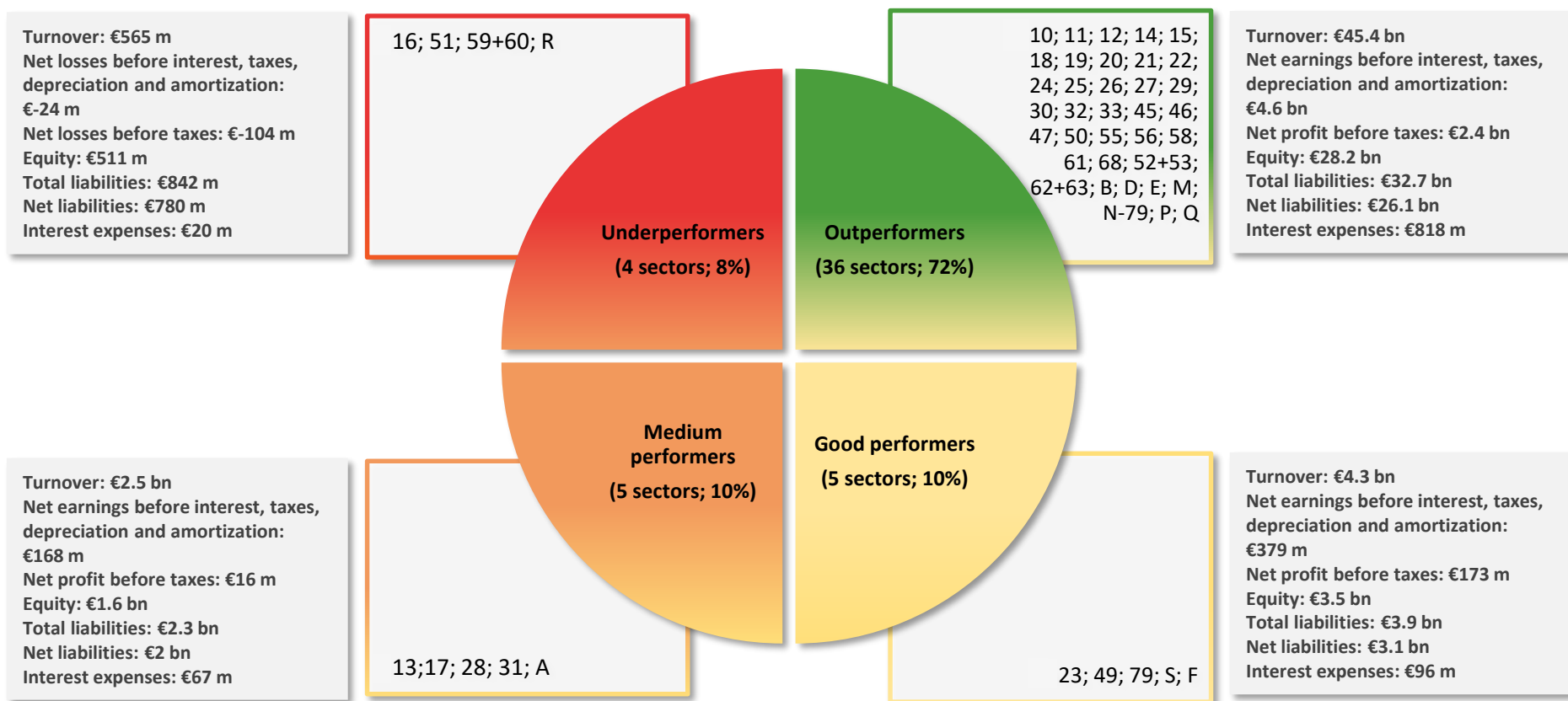


Sectors	BIC Rating										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
27	a-	a-	a-	a-	b+	a-	a-	a-	a-	a-	a
50	d+	d	c	d	d+	b	d+	a	a-	a	a
32	a-	b+	a-	b+	b	b-	b	a-	a	a	a
B	a-	a-	c	d+	d+	b	b	b	d+	a	a
30	c	c+	d+	c	d+	d+	c-	c	a-	a-	a
M	a-	a-	a-	a-	c+	c	b+	a-	a-	a-	a-
E	a+	a	a	a	a	a	a	a	a-	a-	a-
33	b	b	a-	b+	b+	a-	a-	a-	a	a-	a-
25	c	c+	c+	c+	c	b-	b	b+	a-	a-	a-
56	a-	b-	b	c+	c	c+	a-	a-	a-	a-	a-
62+63	a-	a-	a-	c	b-	a-	a-	a-	a-	a-	a-
22	b	c+	b-	c	d+	c-	c+	b+	b	a-	a-
26	b-	b-	b	d	d-	d	d	d	c	a-	a-
24	b	c	d+	c	d+	d	c+	d	a-	a-	a-
52+53	b+	b+	b	b	d+	d+	c+	b-	b+	a-	a-
N-79	c	c+	c	c	d+	c	b	b	a-	a-	a-
Q	a-	a-	a-	b+	b-	a-	b	c	c	b	a-
46	c+	c	c	d+	c-	c	b	b+	a-	a-	a-
15	c-	d+	d+	d+	d+	d+	c-	c	d+	a-	a-
45	d+	d+	d+	d	d	d	d	c	b-	c+	a-
47	b+	b-	c+	c	c	c	b	b+	a-	a-	a-
11	a-	b-	c+	c	c	b	b	b	b+	b+	a-
55	c+	d+	d+	d+	d+	d+	c+	b	b	b	a-
68	a	a-	a-	a-	a-	c	b+	a-	a-	a-	a-
58	a-	a-	b	c	d	d+	b+	b	b	a-	a-
19	d+	d+	c	d+	d+	c-	c+	b	b+	a-	a-
12	d	d+	c+	d+	d+	c	d	c	c-	c+	a-
20	b-	c+	c+	c	d+	c	b-	a-	a-	a-	a-
61	d	d	d	d	b-	b	a-	c	c	c	a-
18	b-	c	c	d+	d+	d+	b-	d	b	b	a-
D	a-	b	c	a-	c+	c+	b	d+	a-	a-	a-
14	b	b-	b-	c-	d+	c	c	b-	b	c+	a-
10	c	c	c	c	c	c	b-	b	b	a-	a-
29	b+	c+	c	c+	d+	d	a-	a-	a-	a-	a-
21	c+	c+	c	c-	d+	c+	c+	b	b	b	a-
P	a-	a-	a-	b	b-	b	b+	b+	b+	c+	a-
S	b	c	b+	d+	d+	d+	b	c+	b	a-	b+
23	b	c	c	c	d+	d	c-	c	c-	b+	b+
49	b	c+	c+	c+	c	c	b	b	a-	a-	b
F	b+	b-	b-	c	d+	d+	c	b	a-	b	b
79	c-	d+	d+	d+	d+	d+	c	c	b-	b-	b-
13	b-	d+	d+	d+	d	d	c	c	c	b	c
31	b	c+	c	d+	d+	d	d+	c-	d+	c-	c
A	d+	d	d+	d+	d+	d+	d+	d+	d+	d+	c
28	b	c+	c	d+	c	c	c	b	c+	a-	c
17	d+	d+	d+	d+	d+	d+	c-	c	c+	c+	c
16	c	d+	d+	d+	d	d-	d	d	d	d+	d+
51	d+	d	d+	d+	b-	d+	a-	c	c-	d+	d
59+60	d+	d+	d	d-	d-	d-	d	d	d	d	d
R	c	c	c-	d	d	d	d	d	d	d	d
Average	b	c	c	c-	d+	d+	c+	c+	b	a-	a-

In 2017, the average cross-sector rating remained “a-”, as in 2016 – the best rating since the BIC Index was first compiled in 2007.

*Ranking of sectors based on 2017 data

BIC Rating System v. 1.02: mapping of sectors based on their performance; 2017



Note: the figures are the sums of sectors per performance based on the sample of enterprises in 2017. The classification of a sector in 2017 as an outperformer, good, medium performer, or underperformer is in relation to the performance of all sectors throughout the period 2007-2017 through a fixed quantitative assessment framework (BIC Rating System v. 1.02).

- In 2017, the average cross-sector rating remained “a-”, as in 2016 – the best rating since the BIC Index was first compiled in 2007 – based on the new sectoral rating system (BIC Rating System v. 1.02).
- 60% of sectors (30 out of 50) retained the same rating in 2017 as in 2016.
- In 2017, 14 sectors (28%) were upgraded based on the rating system.
- 72% of sectors were classified as “outperformers”, since 31 sectors achieved “a-” ratings and five sectors an “a” in 2017. This percentage is the highest of the 2007-2017 period, with the lowest being recorded in 2011 (only two sectors). This big difference is a clear indication of the recovery of SMEs, as the assessment is performed across all sectors for the entire period through a fixed framework (BIC Rating System v. 1.02).
- The important developments regarding sector ratings in 2017 are summarised below:
 - The highest upgrade recorded was in telecommunications (61) from “c” in 2016 to an “a-”, a rating only achieved again in 2013.
 - In 2017, wholesale (45), the tobacco industry (12), and the sectors of apparel manufacturing (14) and education (P) significantly improved their performance. As a result, they upgraded to “a-” from “c+” the previous year, their best performance since 2010.
 - On the other hand, the sector of manufacturing of other machinery and equipment (28) had the highest downgrade among the 50 sectors in 2017, to “c” from an “a-” in 2016.
 - The performance of the textile industry (13) was medium in 2017 from good in 2016; therefore, its rating went from “b” to “c”.
 - Finally, land transport (49) was rated “b” in 2017 from “a-” in 2016. Nevertheless, it remained at a satisfactory level.

1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

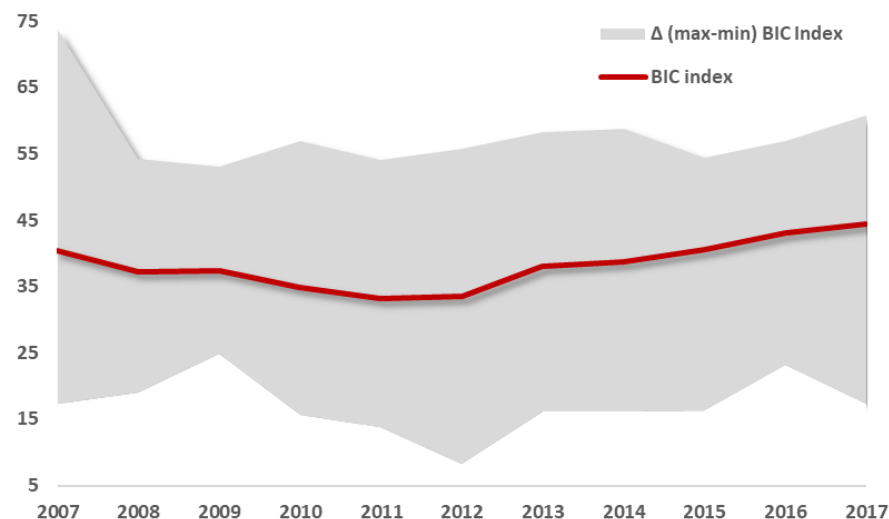
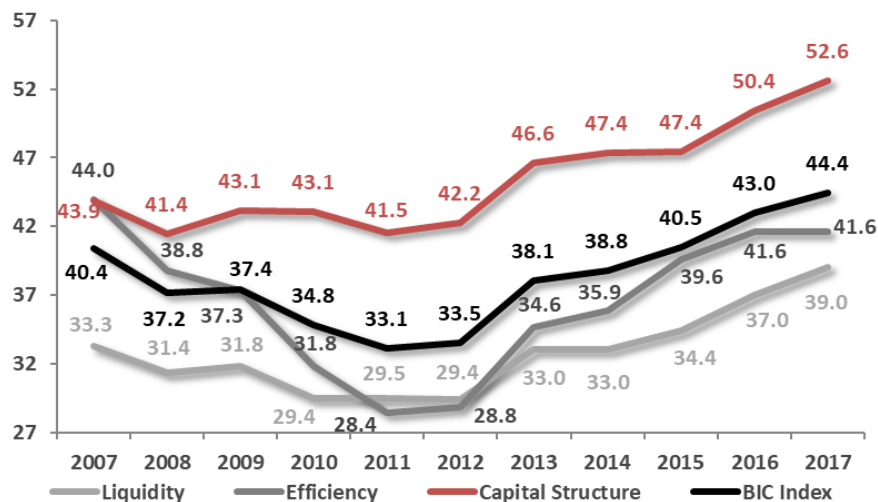
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4a. Methodology of calculating BIC Index

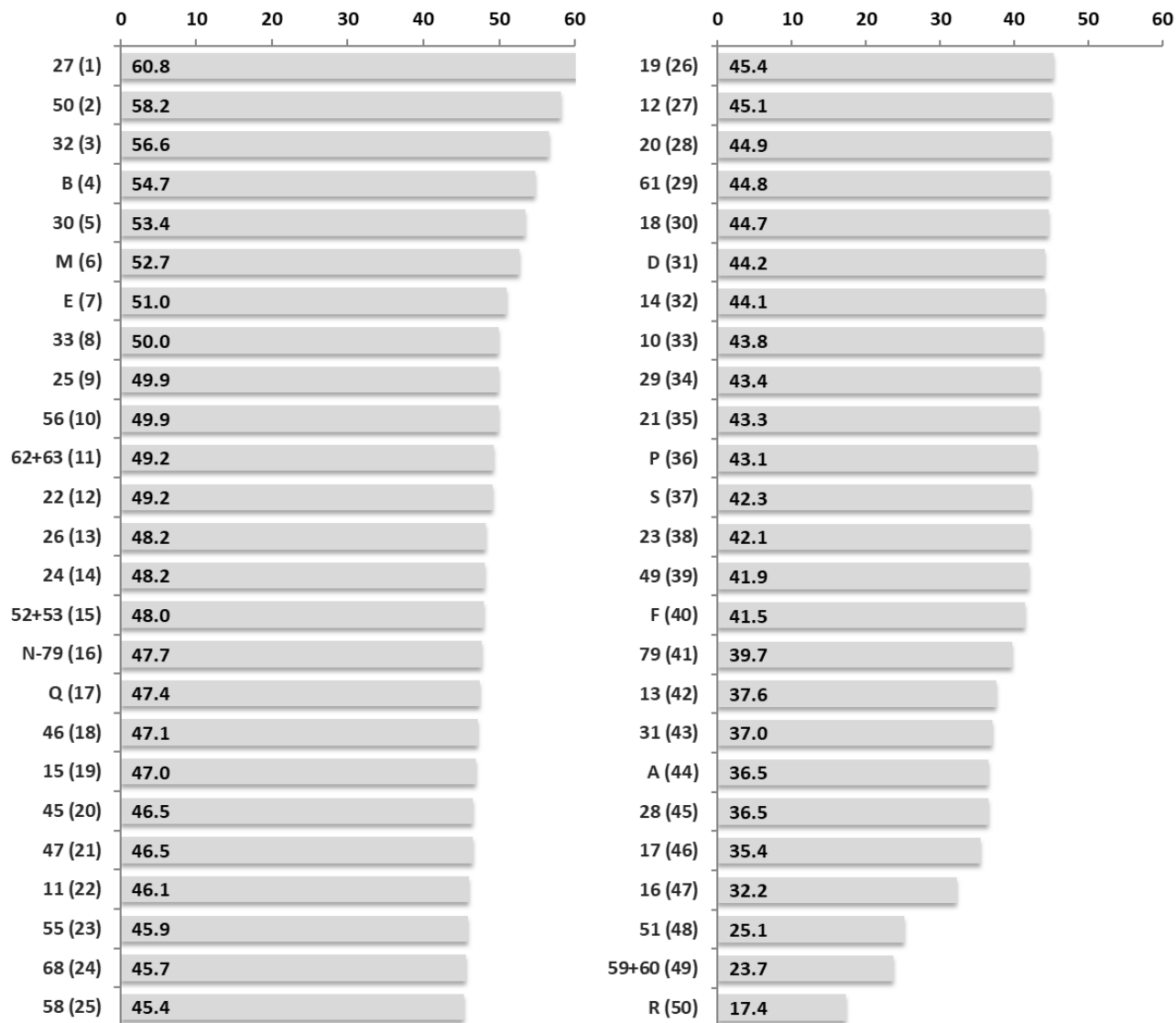
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4c. Additional presentation of results; 2017

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- Nevertheless, the 2017 sectoral performance (as reflected by the sectoral BIC score) was less concentrated around the mean than 2016.
- SMEs that survived the crisis continued to improve their capital structure and to enhance their liquidity.
- However, the average efficiency of SMEs, which reflects their profitability, was nearly stable in 2017 compared to 2016, while it did not yet reach the average level of 2017, even though the average liquidity and capital structure overcame it.



BIC Index: ranking and scores; 2017



*In brackets the ranking of sectors and in the histograms their scores

BIC Index: examination of the scores and rankings of the individual dimensions; 2017



Sectors 2017	BIC Index		Liquidity		Efficiency		Capital Structure		Sectors 2017	BIC Index		Liquidity		Efficiency		Capital Structure	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank		Score	Rank	Score	Rank	Score	Rank	Score	Rank
27	60.8	1	↑ 59.8	2	↗ 44.6	21	↑ 77.9	1	19	45.4	26	↗ 40.3	21	↘ 40.2	29	↗ 55.5	22
50	58.2	2	↑ 66.6	1	↑ 63.6	2	↓ 44.4	39	12	45.1	27	↑ 45.1	11	↓ 20.5	48	↑ 69.6	4
32	56.6	3	↑ 49.3	3	↑ 50.7	10	↑ 69.9	3	20	44.9	28	↘ 38.6	26	↘ 41.0	28	↗ 55.3	23
B	54.7	4	↑ 45.8	8	↗ 47.8	14	↑ 70.6	2	61	44.8	29	↑ 45.1	10	↗ 42.9	25	↘ 46.3	36
30	53.4	5	↗ 42.3	17	↑ 58.2	3	↗ 59.7	14	18	44.7	30	↘ 37.0	29	↘ 39.4	32	↗ 57.8	16
M	52.7	6	↑ 49.0	4	↗ 46.6	15	↑ 62.6	7	D	44.2	31	↘ 34.6	37	↑ 72.7	1	↓ 25.2	49
E	51.0	7	↑ 48.2	5	↗ 44.6	20	↑ 60.3	13	14	44.1	32	↗ 40.2	22	↘ 37.9	37	↘ 54.3	27
33	50.0	8	↓ 33.7	40	↑ 55.0	5	↑ 61.3	10	10	43.8	33	↘ 36.8	32	↘ 38.8	35	↗ 55.8	20
25	49.9	9	↑ 46.4	7	↘ 40.0	31	↑ 63.3	6	29	43.4	34	↘ 35.4	34	↗ 43.3	24	↘ 51.6	32
56	49.9	10	↘ 37.8	27	↑ 50.1	11	↑ 61.7	9	21	43.3	35	↗ 40.0	23	↑ 49.2	12	↓ 40.7	44
62+63	49.2	11	↑ 43.6	13	↑ 48.5	13	↗ 55.6	21	P	43.1	36	↓ 28.1	47	↑ 52.8	8	↘ 48.2	35
22	49.2	12	↗ 41.2	19	↗ 45.1	19	↑ 61.2	11	S	42.3	37	↓ 31.2	43	↘ 38.3	36	↗ 57.2	18
26	48.2	13	↗ 39.1	24	↑ 53.4	6	↘ 52.1	30	23	42.1	38	↘ 34.6	36	↘ 40.1	30	↘ 51.7	31
24	48.2	14	↗ 43.2	15	↓ 33.7	42	↑ 67.6	5	49	41.9	39	↓ 33.5	41	↓ 37.3	39	↘ 54.9	26
52+53	48.0	15	↗ 43.5	14	↗ 44.4	22	↗ 56.0	19	F	41.5	40	↓ 34.1	39	↓ 37.9	38	↘ 52.5	29
N-79	47.7	16	↘ 35.0	35	↗ 46.2	16	↑ 62.0	8	79	39.7	41	↓ 34.4	38	↗ 45.1	18	↓ 39.5	46
Q	47.4	17	↓ 32.5	42	↑ 52.2	9	↗ 57.5	17	13	37.6	42	↘ 36.6	33	↓ 25.9	45	↘ 50.1	33
46	47.1	18	↗ 38.7	25	↘ 42.2	27	↑ 60.5	12	31	37.0	43	↓ 30.4	44	↘ 39.4	33	↓ 41.3	42
15	47.0	19	↑ 48.2	6	↘ 38.8	34	↘ 53.9	28	A	36.5	44	↘ 36.9	31	↓ 31.0	43	↓ 41.6	41
45	46.5	20	↘ 37.6	28	↗ 43.7	23	↗ 58.2	15	28	36.5	45	↗ 40.9	20	↓ 23.5	47	↓ 45.0	38
47	46.5	21	↗ 42.0	18	↘ 42.5	26	↗ 55.1	24	17	35.4	46	↓ 28.3	45	↓ 37.0	40	↓ 40.9	43
11	46.1	22	↗ 42.7	16	↗ 45.5	17	↘ 50.0	34	16	32.2	47	↓ 25.1	49	↓ 26.1	44	↘ 45.3	37
55	45.9	23	↘ 36.9	30	↑ 56.4	4	↓ 44.4	40	51	25.1	48	↓ 28.2	46	↓ 12.2	49	↓ 34.9	47
68	45.7	24	↑ 44.2	12	↑ 53.1	7	↓ 39.7	45	59+60	23.7	49	↓ 26.8	48	↓ 24.0	46	↓ 20.4	50
58	45.4	25	↑ 45.2	9	↓ 35.9	41	↗ 55.1	25	R	17.4	50	↓ 16.7	50	↓ 2.1	50	↓ 33.3	48

• The green colour indicates the sectors whose scores are above the median score of every dimension among the sectors, in contrast with the red colour, which indicates scores below the median score.

• The arrow indicates the intensity of the direction of each sector relative to the median score of the corresponding dimension.

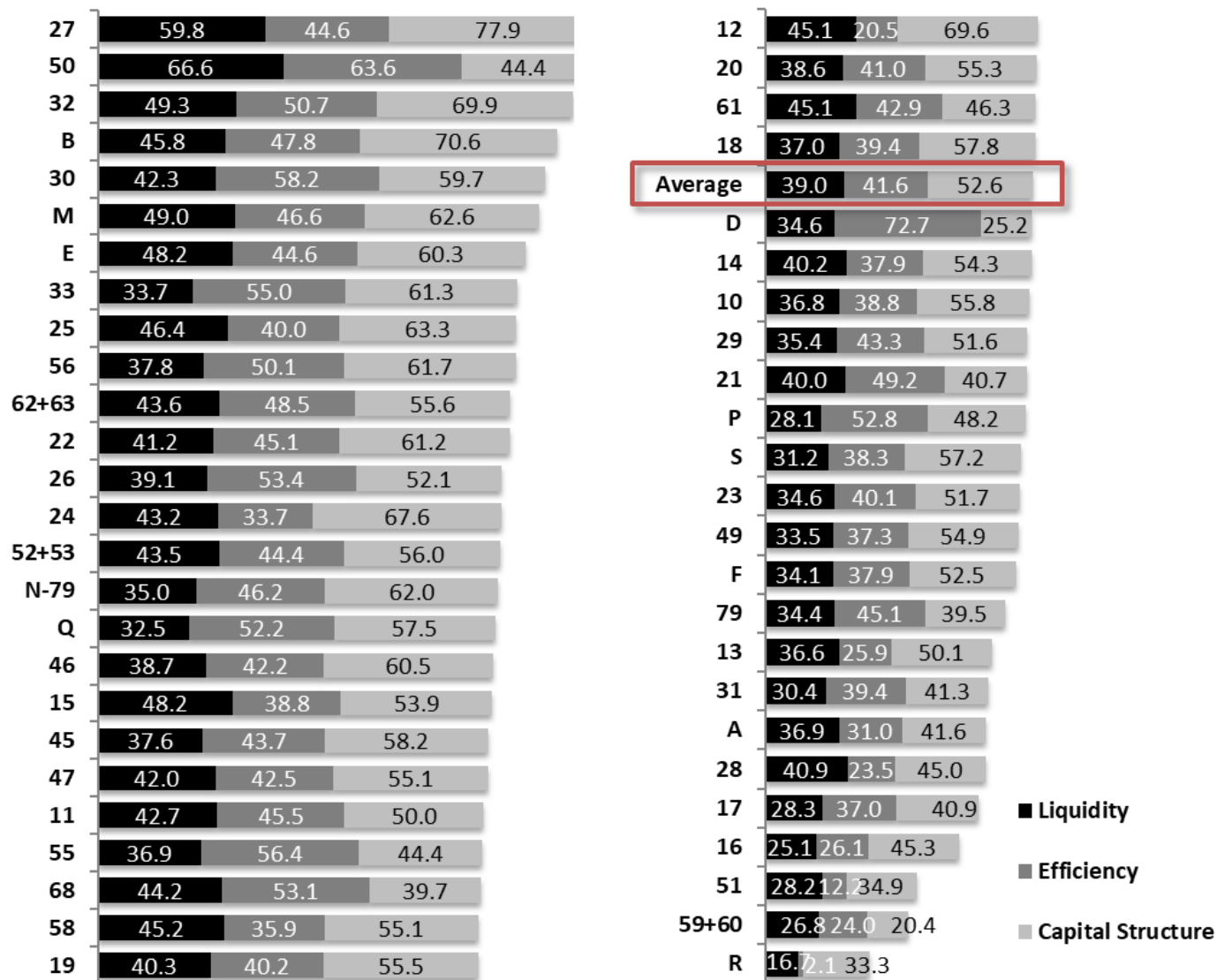
• ↑ score ≥ 75% of score range

• ↗ 50% ≤ score < 75%

• ↘ 25% ≤ score < 50%

• ↓ score < 25%

BIC Index: Structure of the final score per sector; 2017



*The BIC Index is the average result of the scores of each dimension

The sectors with the strongest performance, 2017

27	Manufacture of electrical equipment
50	Water transport
32	Other manufacturing
B	Mining and quarrying
30	Manufacture of other transport equipment
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33	Repair and installation of machinery and equipment
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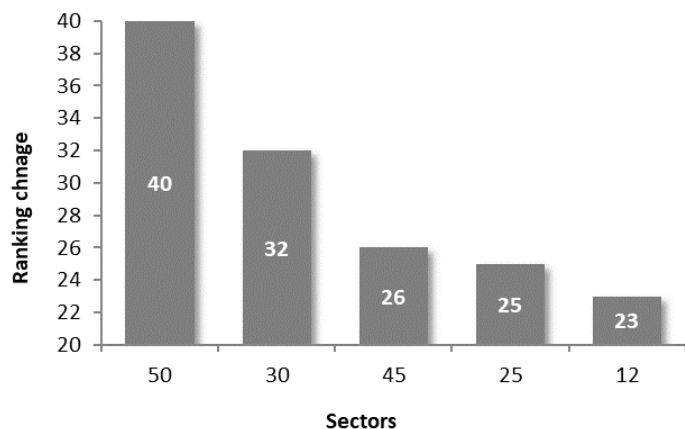
- Once again, sectors related to tourism, such as water transport (50) and food and beverage service activities (56) were among the highest performers in 2017.
- Manufacturing sectors related to equipment, such as the manufacture of electrical equipment (27), the repair and installation of equipment (33), and the manufacture of metal products (25) continued to rank among top performers in 2017. Moreover, the sector of the manufacture of other transport equipment (30) also recorded high performance.
- Finally, quarrying and mining (B) retained the improved average performance of the previous year.

The sectors with the weakest performance, 2017

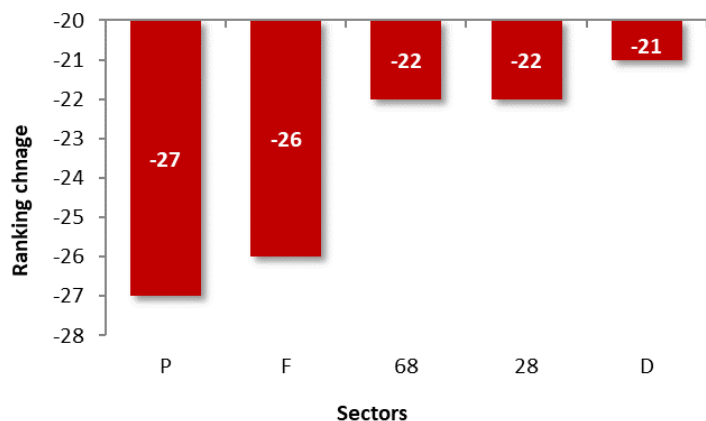
R	Arts, entertainment and recreation
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13	Manufacture of textiles
79	Travel agency etc.

- Sectors of leisure, such as arts and entertainment (R) and mass media (59+60) continued to be among the lowest performers.
- Respectively, low performance continued for the wood processing sectors, in particular for the wood industry (16) and the manufacture of furniture (31).
- The performance of the agricultural sector (A) remained low.
- At the same time, the manufacture of paper (17) and of textiles (13) were among the lowest performers in 2017.
- Despite improved liquidity, the previously low performance of efficiency and capital structure of air transport (51) continued to decline. As a result, the average score lowered in 2017, and the sector ranked among the ten lowest positions.
- Finally, travel agencies (79) were in the low performers in 2017, not because their average performance deteriorated, but because there were better performing sectors.

Sectors with the 5 largest positive cumulative changes in the BIC Index ranking, 2007-2017



Sectors with the 5 largest negative cumulative changes in the BIC Index ranking, 2007-2017



Rising sectors

The sectors of water transport (50), the manufacture of metal products (25), and the manufacture of other transport equipment (30) continued to improve their performance in 2017 compared to 2007. Furthermore, the wholesale (45) and tobacco industry (12) showed more positive performances.

Declining sectors

The sectors of construction (F) and real estate (68) were ranked lower in 2017 than in 2007, as their BIC Index scores were lower than in their “golden years”. Of course, this does not mean that they did not improve their performance since the recession, but simply that there were more dynamic performing sectors.

At the same time, the energy sector (D) seemed to fall behind in the ranking. However, it recovered to pre-crisis level, as the BIC Index score was 44.2 points in 2017 versus 44.9 in 2007.

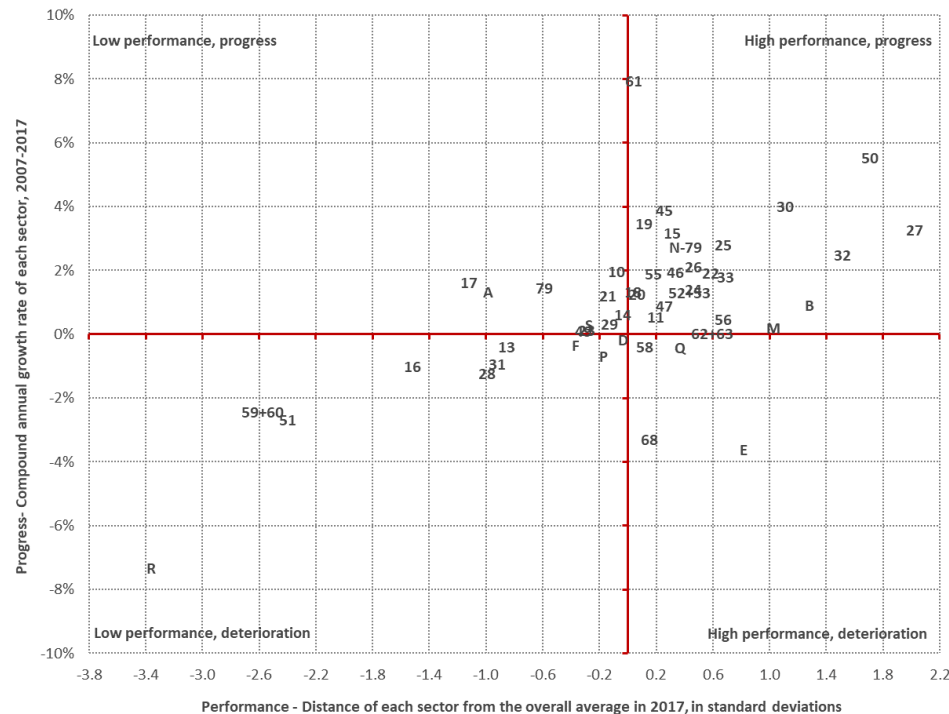
Moreover, the education sector (P) seemed to recover from the crisis; however, its average performance in 2017 (43.1 points) was still below that of 2007 (46.2).

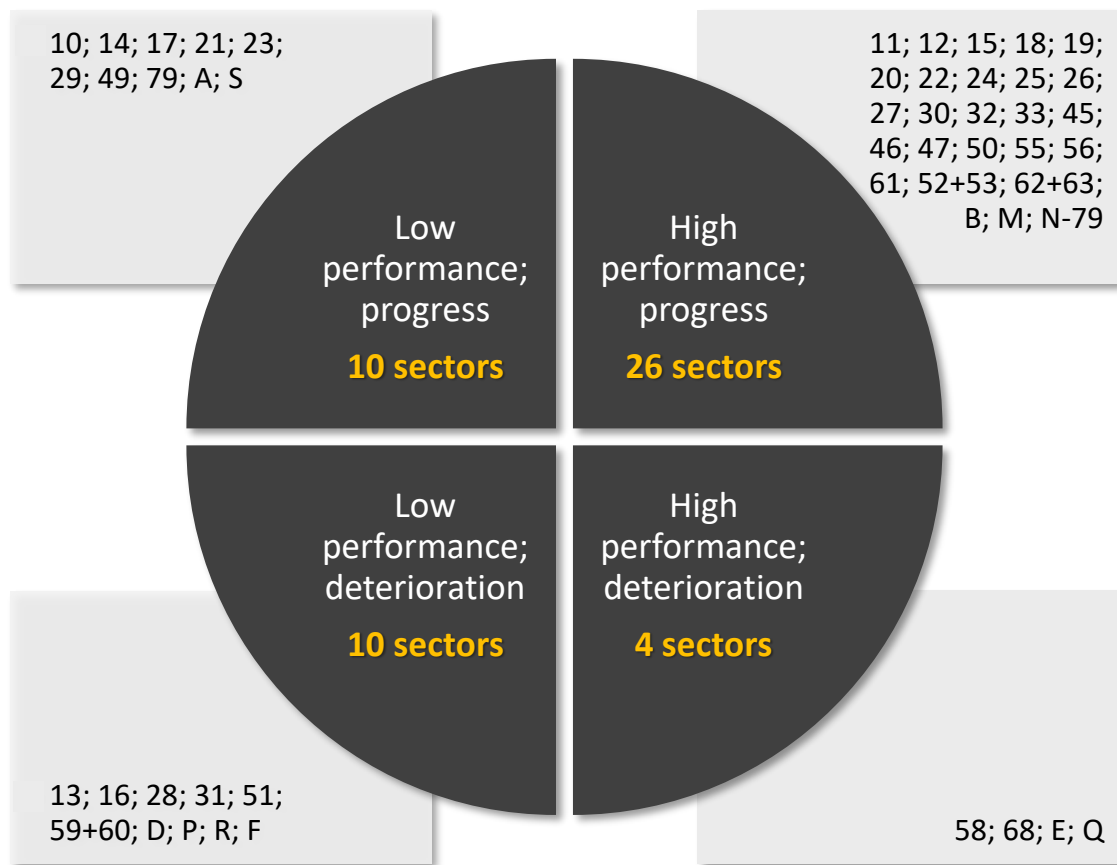
Finally, the average performance of the manufacture of other machinery and equipment (28) was compressed in 2017 (36.5 points compared to 2007) (41.3).

BIC Index 2007-2017: Sector performance and development



- 72% of sectors improved their average performance in 2017 compared to 2007, as reflected by their BIC Index scores.
- 52% of sectors exceeded average performance and, at the same time, improved during the period from 2007-2017.
- Water transport (50), other manufacturing (32), and the manufacture of electrical equipment (27) combined high performance and score improvement.
- On the other hand, the sectors of mass media (59+60), arts and entertainment (R), and air transport (51) continued to have very low performance, and, at the same time, their score deteriorated significantly in 2017 compared to 2007.
- The BIC Index score of water supply, etc. (E) declined in 2017 compared to 2007, recovering from the previous year and remaining higher than the average performance.
- Finally, the performance of telecommunications (61) was very close to average; however, in 2017 compared to 2007, it recorded the highest improvement among the sectors.





1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

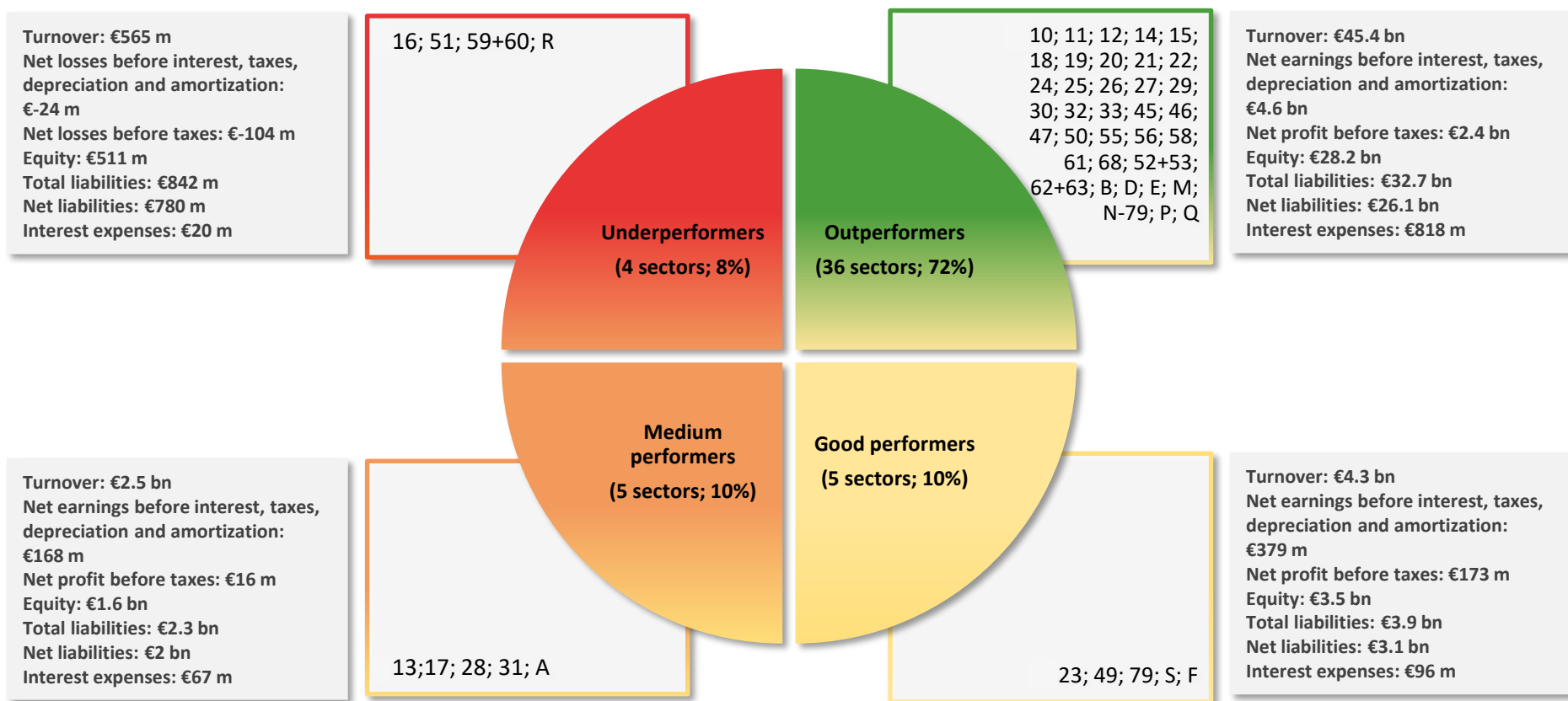
4. Appendices

4a. Methodology of calculating BIC Index

4b. Methodology of calculating BIC Rating System v. 1.02

4c. Additional presentation of results; 2017

BIC Rating System v. 1.02: mapping of sectors based on their performance; 2017



Note: the figures are the sums of sectors per performance based on the sample of enterprises in 2017. The classification of a sector in 2017 as an outperformer, good, medium performer, or underperformer is in relation to the performance of all sectors throughout the period 2007-2017 through a fixed quantitative assessment framework (BIC Rating System v. 1.02).

Classification of sectors per year based on the BIC Rating System v. 1.02



Rating	2007			2008			2009			2010			2011			2012			2013			2014			2015			2016			2017			Rating
a+	E																																	a+
a	68			E			E			E			E			E			E			50 E			32 33			50 32 B			27 50 32			a
a-	27	32	B	27	B	M	27	32	M	27	M	68	68			27	33	62+63	27	33	56	27	32	M	27	50	30	27	30	M	M	E	33	a-
	M	56	62+63	62+63	Q	68	33	62+63	Q	D						Q			62+63	61	29	33	56	62+63	M	E	25	E	33	25	25	56	62+63	
	Q	11	58	58	P		68	P										51				68	20	29	56	62+63	24	56	62+63	22	22	26	24	
	D	P																							N-79	46	47	26	24	52+53	52+53	N-79	Q	
																									68	20	D	N-79	46	15	46	15	45	
																									29	49	F	47	68	58	47	11	55	
b+	52+53	47	29	32	52+53		S			32	33	Q	27	33					M	68	58	25	22	46	52+53	11	19	11	23		S	23	b+	
	F																	P				47	P		P									
b	33	22	24	33	D		56	26	52+53	52+53	P		32			50	B	11	32	B	25	B	N-79	11	22	55	58	Q	55	18	49	F	b	
	14	S	23				58									61	P		N-79	Q	46	58	19	10	18	14	10	21	F	13				
	49	31	28																47	11	D	21	49	F	21	S								
b-	26	20	18	56	26	47	22	14	F				62+63	Q	61	32	25		20	18	10	52+53	14		45	79		79					b-	
	13			11	14	F							P	51																				
c+	46	55	21	30	25	22	25	47	11	25	56	29	M	D		56	D	21	22	24	52+53	55	S		28	17		45	12	14				
				N-79	20	29	12	20	49	49									19	21								P	17					
				21	49	31																												
c	30	25	N-79	24	46	18	50	B	N-79	30	62+63	22	25	56	47	M	N-79	46	14	F	79	30	Q	15	26	Q	61	61			13	31	A	c
	10	16	R	10	S	23	46	19	18	24	N-79	47	11	10	49	47	68	12	13	28		45	12	61	13					28	17			
				R			D	10	29	11	58	20	28			20	14	10				23	79	13										
c-	15	79					R			14	21		46			22	19		30	15	23	31			12	23	51	31					c-	
																			17															
d+	50	45	19	15	45	55	30	24	15	B	46	15	50	B	30	30	52+53	15	50	45	55	D	A		B	15	31	A	16	51	16		d+	
	A	17	51	19	12	79	45	55	79	55	19	12	22	24	52+53	55	58	18	31	A				A										
	59+60			13	17	16	13	A	17	18	S	79	N-79	15	55	S	F	79																
				59+60			16	51		13	31	A	19	12	20	A	17	51																
										28	17	16	18	14	29																			
										51				21	S	23																		
d	12	61		50	61	A	61	59+60		50	26	45	45	58	13	26	24	45	26	12	16	26	24	18	16	59+60	R	59+60	R		51	59+60	R	d
				51						61	R		16	R		29	23	13	59+60	R														
																31	R																	
d-										59+60			26	59+60		16	59+60																	

Mapping of the performance of sectors per year based on the BIC Rating System v. 1.02



Sectors	BIC Index Score												07-17	BIC Rating											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
27	44.0	45.1	43.0	44.3	42.2	44.6	45.6	45.7	45.5	51.3	60.8		a-	a-	a-	a-	b+	a-	a-	a-	a-	a-	a		
50	33.9	23.6	35.1	25.3	33.5	41.6	30.0	58.7	46.9	56.9	58.2		d+	d	c	d	d+	b	d+	a	a-	a	a		
32	44.3	42.9	43.5	42.4	40.5	39.6	41.6	46.6	53.0	54.8	56.6		a-	b+	a-	b+	b	b-	b	a-	a	a	a		
B	49.9	45.2	35.3	30.0	32.5	40.1	40.0	40.5	31.4	54.9	54.7		a-	a-	c	d+	d+	b	b	b	d+	a	a		
30	36.1	38.8	33.9	35.2	32.0	31.9	34.9	37.3	43.1	45.8	53.4		c	c+	d+	c	d+	d+	c-	c	a-	a-	a		
M	51.7	48.8	43.9	44.9	38.8	36.6	42.1	45.9	45.2	49.4	52.7		a-	a-	a-	a-	c+	c	b+	a-	a-	a-	a-		
E	73.7	54.1	53.1	56.9	54.1	55.7	58.3	54.1	49.5	46.0	51.0		a+	a	a-	a	a	a	a	a	a-	a-	a		
33	41.9	40.8	43.1	42.6	42.2	49.9	46.2	43.8	54.3	48.9	50.0		b	b	a-	b+	b+	a-	a-	a-	a	a-	a		
25	37.8	38.9	38.8	38.2	35.4	39.1	40.9	42.7	45.5	49.2	49.9		c	c+	c+	c+	c	b-	b	b+	a-	a-	a		
56	47.6	39.0	41.9	38.3	36.9	38.7	46.4	50.5	43.0	49.1	49.9		a-	b-	b	c+	c	c+	a-	a-	a-	a-	a-		
62+63	49.1	48.6	44.6	36.9	39.7	48.4	46.4	47.9	49.4	48.8	49.2		a-	a-	a-	c	b-	a-	a-	a-	a-	a-	a-		
22	40.7	38.1	39.5	36.5	33.3	35.0	38.6	42.5	41.8	46.9	49.2		b	c+	b-	c	d+	c-	c+	b+	b	a-	a-		
26	39.0	39.8	40.1	26.0	13.7	19.7	20.9	19.1	36.2	49.2	48.2		b-	b-	b	d	d-	d	d	d	c	a-	a-		
24	41.9	37.0	31.4	35.5	32.6	22.1	38.6	21.2	48.5	44.9	48.2		b	c	d+	c	d+	d	c+	d	a-	a-	a-		
52+53	42.1	42.3	40.4	40.8	31.0	32.1	38.7	39.7	42.9	47.1	48.0		b+	b+	b	b	d+	d+	c+	b-	b+	a-	a-		
N-79	36.4	38.4	37.0	36.9	33.6	35.2	40.1	40.9	47.5	45.9	47.7		c	c+	c	c	d+	c	b	b	a-	a-	a-		
Q	49.4	46.0	47.5	42.0	39.1	43.1	41.6	35.2	36.3	40.5	47.4		a-	a-	a-	b+	b-	a-	b	c	c	b	a-		
46	38.9	36.5	36.1	33.9	34.4	36.6	40.8	42.9	44.0	44.7	47.1		c+	c	c	d+	c-	c	b	b+	a-	a-	a-		
15	34.3	31.8	28.2	28.2	31.7	27.0	34.3	36.3	29.5	44.1	47.0		c-	d+	d+	d+	d+	c-	c	d+	a-	a-	a-		
45	31.8	29.6	28.9	25.8	24.1	23.1	28.5	35.5	40.0	38.4	46.5		d+	d+	d+	d	d	d	d+	c	b-	c+	a-		
47	42.6	39.8	38.7	35.6	36.9	37.7	41.4	42.0	43.9	44.2	46.5		b+	b-	c+	c	c	c	b	b+	a-	a-	a-		
11	43.6	39.5	38.5	36.4	36.2	41.7	41.6	41.9	42.1	42.6	46.1		a-	b-	c+	c	c	b	b	b	b+	b+	a-		
55	38.0	33.9	32.0	28.0	30.5	29.2	33.4	38.5	40.2	41.2	45.9		c+	d+	d+	d+	d+	d+	d+	c+	b	b	a-		
68	63.9	46.1	51.8	50.2	49.5	35.5	42.6	52.7	49.4	51.0	45.7		a	a-	a-	a-	a-	c	b+	a-	a-	a-	a-		
58	47.3	44.0	41.9	37.2	24.8	29.0	42.1	41.6	40.9	44.6	45.4		a-	a-	b	c	d	d+	b+	b	b	a-	a-		
19	32.2	27.8	35.0	33.9	30.4	34.7	38.3	41.4	43.0	44.2	45.4		d+	d+	c	d+	d+	c-	c+	b	b+	a-	a-		
12	17.3	26.9	38.2	32.4	30.9	35.9	22.7	36.3	34.8	38.1	45.1		d	d+	c+	d+	d+	c	d	c	c-	c+	a-		
20	39.7	38.3	38.5	37.3	33.4	36.5	39.0	44.5	44.8	44.7	44.9		b-	c+	c+	c	d+	c	b-	a-	a-	a-	a-		
61	20.8	18.9	25.4	24.7	39.9	40.7	49.8	37.8	35.1	37.8	44.8		d	d	d	d	b-	b	a-	c	c	c	a-		
18	39.2	37.7	37.1	31.5	31.5	32.4	39.1	25.0	42.0	40.4	44.7		b-	b	c	c	d+	d+	d+	b-	d	b	b	a-	
D	44.9	41.2	37.0	44.2	38.7	38.6	41.9	27.7	44.1	43.5	44.2		a-	b	c	a-	c+	c+	b	d+	a-	a-	a-		
14	41.5	39.9	39.2	34.9	32.9	36.6	37.5	39.6	41.8	38.4	44.1		b	b-	b-	c-	d+	c	c	b-	b	c+	a-		
10	36.0	36.2	36.2	36.4	35.7	36.3	39.9	40.9	41.7	43.3	43.8		c	c	c	c	c	c	b-	b	b	a-	a-		
29	42.1	38.1	36.8	38.1	27.4	21.8	50.9	50.0	47.8	44.4	43.4		b+	c+	c	c+	d+	d	a-	a-	a-	a-	a-		
21	38.4	38.9	37.7	34.6	31.3	38.6	39.0	40.3	41.6	41.9	43.3		c+	c+	c	c-	d+	c+	c+	b	b	b	a-		
P	46.2	44.2	43.3	41.0	39.1	40.8	42.1	42.3	42.5	38.5	43.1		a-	a-	a-	b	b-	b	b+	b+	b+	c+	a-		
S	41.0	35.4	42.6	29.5	33.1	33.2	41.5	39.0	40.4	46.5	42.3		b	c	b+	d+	d+	d+	b	c+	b	a-	b+		
23	41.5	37.9	36.2	35.7	29.8	24.5	34.8	37.9	34.6	42.6	42.1		b	c	c	c	d+	d	c-	c	c-	b+	b+		
49	41.5	38.8	38.5	38.7	36.1	35.0	40.0	40.5	43.7	44.5	41.9		b	c+	c+	c+	c	c	b	b	a-	a-	b		
F	42.9	39.7	39.3	35.1	31.6	32.6	36.2	41.2	44.5	41.1	41.5		b+	b-	b-	c	d+	d+	c	b	a-	b	b		
79	34.4	31.5	30.2	29.4	30.4	31.1	37.8	37.5	39.7	39.3	39.7		c-	d+	d+	d+	d+	d+	c	c	b-	b-	b-		
13	39.0	33.4	32.6	28.8	24.4	25.8	36.0	37.6	37.4	41.6	37.6		b-	d+	d+	d+	d	d	c	c	c	b	c		
31	40.7	38.8	36.6	28.5	31.6	23.3	32.2	34.8	33.3	34.5	37.0		b	c+	c	d+	d+	d	d+	c-	d+	c-	c		
A	32.0	23.4	30.2	33.1	32.9	30.3	33.6	31.6	33.6	33.4	36.5		d+	d	d	d+	d+	d+	d+	d+	d+	d+	c		
28	41.3	38.1	37.8	33.7	37.1	35.6	37.7	42.0	39.0	46.5	36.5		b	c+	c	d+	c	c	c	b	c+	a-	c		
17	30.1	29.0	31.9	30.0	28.6	27.6	34.7	35.6	38.3	38.7	35.4		d+	d+	d+	d+	d+	d+	c-	c	c+	c+	c		
16	35.6	32.9	33.0	29.4	20.6	8.3	16.7	16.8	17.6	31.5	32.2		c	d+	d+	d+	d	d-	d	d	d	d+	d+		
51	33.0	20.5	30.2	29.6	39.1	30.9	49.4	36.7	34.5	28.5	25.1		d+	d	d+	d+	b-	d+	a-	c	c-	d+	d		
59+60	30.3	27.8	24.9	15.6	14.2	11.2	16.2	16.2	16.3	23.8	23.7		d+	d+	d	d-	d-	d-	d	d	d	d	d		
R	37.1	35.4	34.5	25.0	17.1	19.0	22.3	21.5	21.5	23.2	17.4		c	c	c-	d	d	d	d	d	d	d	d		
Average	40.4	37.2	37.4	34.8	33.1	33.5	38.1	38.8	40.5	43.0	44.4		b	c	c	c-	d+	d+	c+	c+	b	a-	a-		

*Ranking of sectors based on 2017 data

1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

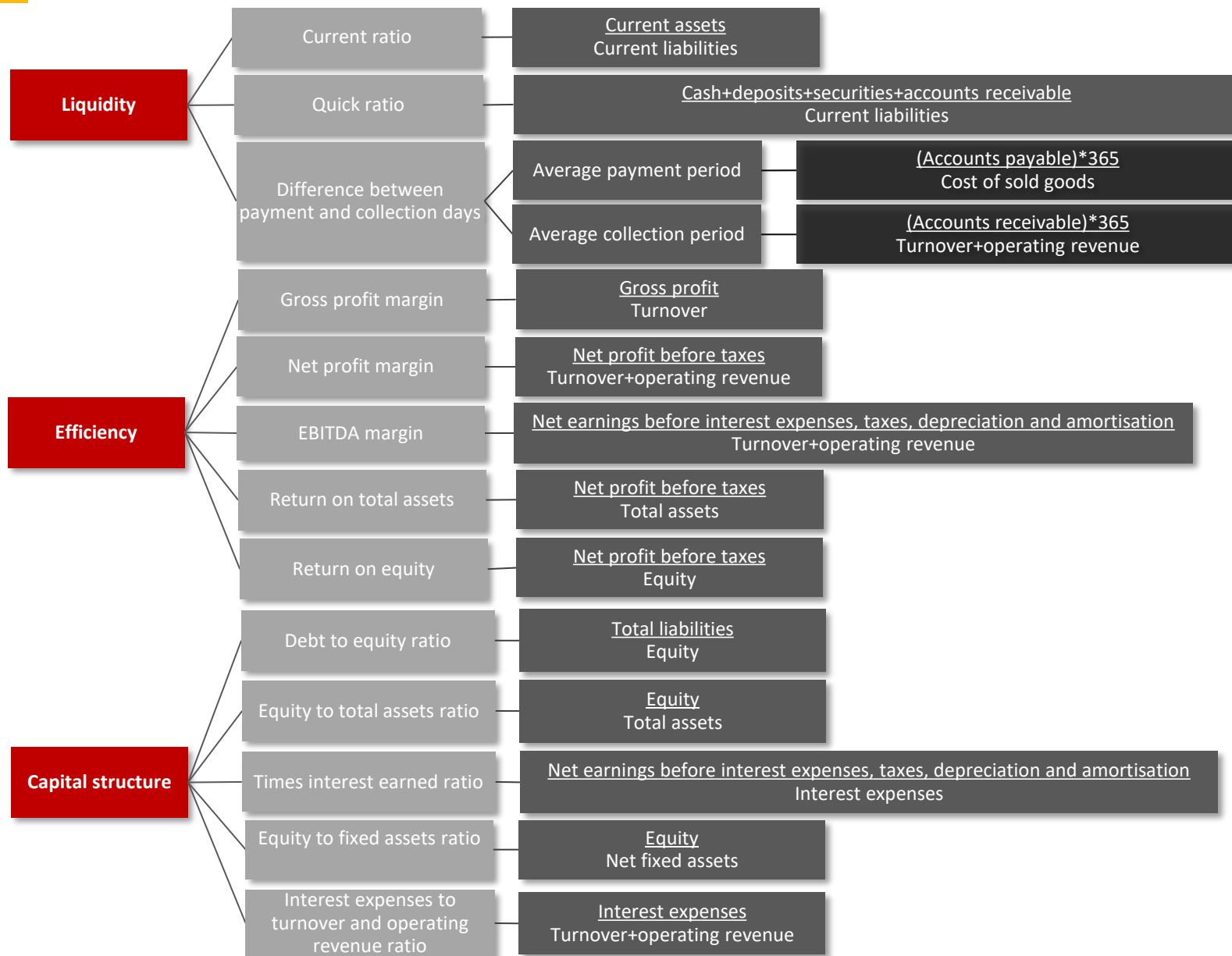
4. Appendices

4a. Methodology of calculating BIC Index

4b. Methodology of calculating BIC Rating System v. 1.02

4c. Additional presentation of results; 2017

Examined financial ratios per dimension



- Each of these variables has a **different range**, as well as **different units of measurement**; e.g. some variables count the number of days, some are expressed as percentages and so on.
- In order to be able to initially **compare and synthesize** these variables, for the three key dimensions of liquidity, efficiency and capital structure and then the BIC Index, **all variables should be converted to a common base**.
- Standardization of variables examined:
- When **the rise of a variable value is a positive development**, the standardization formula is:

$$p_i = \frac{I_i - I_{min}}{I_{max} - I_{min}} \times 100$$

Where, **p_i** : the variable value of sector i after the standardization;

I_i : the variable value of sector i before the standardization;

I_{min} : the variable value of the sector with the weakest performance of all examined sectors;

I_{max} : the variable value of the sector with the strongest performance of all examined sectors.

- When **the decline of a variable value is a positive development**, the standardization formula is:

$$p_i = \frac{I_{max} - I_i}{I_{max} - I_{min}} \times 100$$

- The common range of variables is: **0-100**.
- Crucial to the construction of the index is the **choice of the base period**, namely the period used to calculate the maximum (**I_{max}**) and minimum (**I_{min}**) value. The standardization year is **2006**.
- The source of financial data is ICAP DATA.
- Overall, we examine **50 sectors** and the number of the sample of enterprises with available financial data ranges from 16.2 thousand to 23.5 thousand during 2007-2017.

Weights of examined ratios and variables per dimension for the calculation of the BIC Index



Liquidity (33.3%)	<ul style="list-style-type: none"> • Current ratio.....33.3% • Quick ratio.....33.3% • Difference between payment and collection days.....33.3%
Efficiency (33.3%)	<ul style="list-style-type: none"> • Gross profit margin.....20% • Net profit margin.....20% • EBITDA margin.....20% • Return on total assets.....20% • Return on equity.....20%
Capital structure (33.3%)	<ul style="list-style-type: none"> • Debt to equity ratio.....20% • Equity to total assets ratio.....20% • Equity to fixed assets.....20% • Times interest earned ratio.....20% • Interest expenses to turnover and operating revenue ratio.....20%

- Processing of enterprise sample: we excluded enterprises that:
 - had no available financial data;
 - reported negative equity;
 - had no data available on the number of personnel;
 - showed no turnover;
 - had no available data for the cost of goods sold.
- Given the emphasis on **SMEs***, we selected the enterprises that met the following criteria:
 - the number of employees does not exceed 250 persons; while
 - their turnover does not exceed €50 million.
- We examine all sectors of economic activity, according to the **STAKOD'08** (=NACE rev. 2) classification, except for the following:
 - K: Financial and insurance activities
 - O: Public administration and defense; compulsory social security
 - T: Activities of households as employers; undifferentiated goods – and services – producing activities of households for own use
 - U: Activities of extraterritorial organizations and bodies.

* In line with the definition of SMEs given by the European Commission (Commission Recommendation 2003/361/EC).

The examined sectors of the domestic economy and presentation of the samples of SMEs; 2007-2017 (a)



Codes	STAKOD'08 (=NACE rev. 2)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
A	Agriculture, forestry and fishing	249	289	280	254	261	223	233	246	231	235	236
B	Mining and quarrying	89	111	108	94	85	73	83	83	70	64	71
10	Manufacture of food products	1,014	1,044	1,035	984	991	931	951	994	923	920	1,010
11	Manufacture of beverages	177	180	180	168	165	160	154	159	151	162	178
12	Manufacture of tobacco products	12	9	10	9	10	9	9	9	8	8	8
13	Manufacture of textiles	166	166	165	157	138	120	114	116	99	98	110
14	Manufacture of wearing apparel	301	297	284	261	248	213	206	204	184	183	203
15	Manufacture of leather and related products	49	49	43	42	43	37	38	39	37	36	41
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	121	123	121	103	92	80	78	83	75	72	74
17	Manufacture of paper and paper products	140	144	144	141	142	138	124	128	121	122	129
18	Printing and reproduction of recorded media	218	226	214	196	182	156	151	163	161	157	187
19	Manufacture of coke and refined petroleum products	28	26	26	28	26	27	24	24	26	24	23
20	Manufacture of chemicals and chemical products	221	223	231	224	224	213	203	206	191	204	219
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	51	52	51	49	56	48	44	47	44	48	49
22	Manufacture of rubber and plastic products	276	275	279	264	243	226	235	232	202	196	222
23	Manufacture of other non-metallic mineral products	478	473	464	415	387	334	332	325	278	239	273
24	Manufacture of basic metals	69	71	69	67	65	58	56	55	43	41	44
25	Manufacture of fabricated metal products, except machinery and equipment	535	537	521	481	463	417	411	415	383	356	410
26	Manufacture of computer, electronic and optical products	63	63	62	61	59	53	58	61	60	57	67
27	Manufacture of electrical equipment	141	142	147	137	130	122	114	121	118	112	117
28	Manufacture of machinery and equipment n.e.c.	220	222	218	208	193	196	184	183	177	182	201
29	Manufacture of motor vehicles, trailers and semi-trailers	35	35	37	35	30	25	20	27	18	21	24
30	Manufacture of other transport equipment	31	30	30	27	29	23	22	18	19	20	25
31	Manufacture of furniture	225	213	213	189	159	131	121	123	109	109	132
32	Other manufacturing	148	147	150	138	135	122	118	115	108	116	130
33	Repair and installation of machinery and equipment	58	58	52	42	57	50	52	57	72	76	91

Data extraction period: 2007-2014: May of each year, 2015-2017: October of each year

The examined sectors of the domestic economy and presentation of the samples of SMEs; 2007-2017 (b)



Codes	STAKOD'08 (=NACE rev. 2)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
D	Electricity, gas, steam and air conditioning supply	110	121	150	168	208	205	285	359	241	231	276
E	Water supply; sewerage, waste management and remediation activities	68	83	89	84	87	94	104	122	110	113	143
F	Construction	1,664	1,706	1,693	1,496	1,398	1,091	1,112	1,185	1,027	1,066	1,219
45	Wholesale and retail trade and repair of motor vehicles and motorcycles	835	825	801	705	683	583	552	553	543	498	578
46	Wholesale trade, except of motor vehicles and motorcycles	5,281	5,380	5,344	4,908	5,135	4,605	4,517	4,664	4,519	4,213	5,078
47	Retail trade, except of motor vehicles and motorcycles	1,350	1,348	1,328	1,158	1,194	1,044	984	1,062	1,059	1,047	1,265
49	Land transport and transport via pipelines	198	198	192	182	194	207	228	267	221	228	247
50	Water transport	24	25	21	17	20	18	17	14	10	7	9
51	Air transport	13	13	17	17	13	13	13	13	8	9	9
52+53	Warehousing and postal and courier activities	464	464	456	435	465	410	405	471	358	361	386
55	Accommodation	2,985	2,989	3,012	2,763	2,579	2,187	2,122	2,220	1,689	1,513	1,807
56	Food and beverage service activities	542	551	534	480	461	324	316	358	389	303	358
58	Publishing activities	226	244	237	197	202	166	167	174	149	132	160
59+60	Motion picture, video and television programme production, sound recording and music publishing activities. Programming and broadcasting activities	226	221	218	188	184	135	136	145	98	77	103
61	Telecommunications	39	43	46	39	37	37	38	46	38	37	44
62+63	Computer programming, consultancy and related activities. Information service activities	470	490	488	451	476	426	426	464	385	355	456
68	Real estate activities	596	612	609	574	574	394	413	516	272	291	339
M	Professional, scientific and technical activities	1,275	1,323	1,334	1,219	1,308	1,098	1,060	1,223	876	834	1,138
N-79	Administrative and support service activities excluding travel agency, tour operator and other reservation service and related activities	467	482	453	402	420	385	399	412	320	297	401
79	Travel agency, tour operator and other reservation service and related activities	366	365	339	295	313	280	293	310	226	185	236
P	Education	199	202	206	185	193	186	166	179	141	119	143
Q	Human health and social work activities	349	385	399	386	433	353	380	415	355	345	446
R	Arts, entertainment and recreation	103	114	116	106	93	57	74	82	68	74	103
S	Other service activities	79	79	73	62	84	72	68	62	52	48	78
Total		23,044	23,468	23,289	21,291	21,367	18,555	18,410	19,549	17,062	16,241	19,296

* 09 (mining support service activities) is excluded from B, and 94 (activities of membership organisations) from S – no available data from ICAP DATA

1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

4. Appendices

4a. Methodology of calculating BIC Index

4b. Methodology of calculating BIC Rating System v. 1.02

4c. Additional presentation of results; 2017

BIC Rating System*: distribution characteristics of the BIC Index scores 2007-2012 vs 2007-2017



When we first developed the BIC Rating System in 2014, we examined the period 2007-2012, which included both years of growth and recession with a corresponding impact on the financial results of enterprises.

The distribution of all scores of the BIC Index (50 sectors; 2007-2012) was almost symmetrical, with an average of 36.1, a median of 36.5, and a standard deviation of 8 points. The maximum value was 73.7 points and the minimum was 8.3.

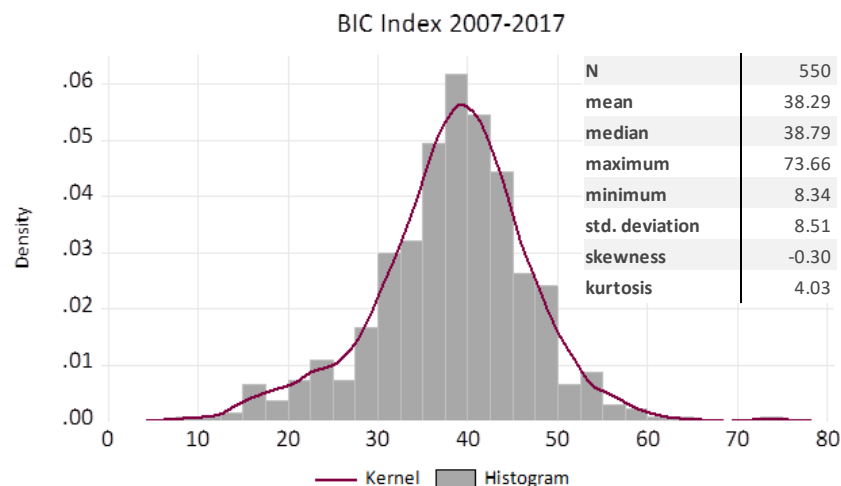
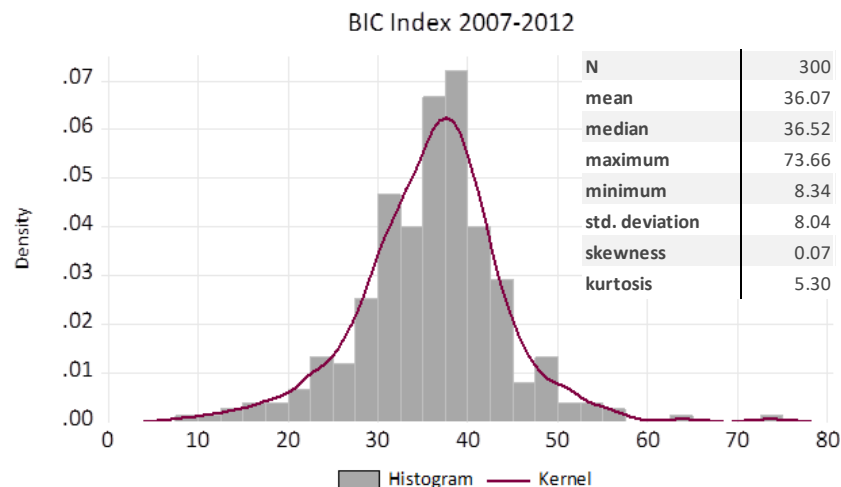
Since then, the Greek economy and entrepreneurship underwent phases of recovery, yet also faced the implementation of capital controls. These facts seem to be reflected in the BIC Index scores we constructed. If we examine the period **2007-2017**, we find that the **distribution characteristics are a bit different from** those from the period **2007-2012**.

The **average and median** BIC Index score (50 sectors; 2007-2017) **are higher** at 38.3 and 38.8 points, respectively, reflecting higher average performance. The distribution from almost symmetrical (0.07) is now **slightly negatively asymmetric** (-0.3), and, at the same time, it is **less concentrated** (kurtosis: 4) than that of the period 2007-2012 (kurtosis: 5.3).

The **range** of the new distribution remains the **same**, as the maximum value of BIC Index was recorded in 2007 at 73.7 points and the minimum in 2012 at 8.3 points.

The **changed characteristics** of the BIC Index score distribution, which reflect the sectoral performance of SMEs, **lead us to review the implemented thresholds of the BIC Rating System**, which will **incorporate the developments of Greece's economic cycle since 2012**. Therefore, we will be able to **assess the performance of a sector** both at a cross-sectoral level and a time level **through a fixed but revised quantitative framework**.

Histogram and kernel distribution of the scores of BIC Index of 50 sectors



* The methodology adopted is based on a similar methodology presented by Khramov V. and Lee J.R. (2013), The Economic Performance Index (EPI): an Intuitive Indicator for Assessing a Country's Economic Performance Dynamics in an Historical Perspective, IMF Working Paper WP/13/214, October 2013.

We continue to adopt the same methodology and divide our distribution in four (4) groups (quartiles). We revised the rating system, where the **implemented score thresholds are close to the new distribution of the BIC Index scores (2007-2017)**. Between the two versions of BIC Rating System, it has been observed that the implemented thresholds are now higher, which is attributed to the fact that we have now incorporated years of recovery of the Greek economy.

According to the implemented thresholds of BIC Index scores, we have created **three (3) individual categories for each quartile**, the intervals of which are **symmetrical around the median**. Therefore, based on this approach, **we present the new rating system (BIC Rating System v. 1.02)**, which is based on the BIC Index scores 2007-2017. Compared to the previous version of the rating system, all the thresholds in categories of outperformers, good, and medium performers are higher, while in the underperformers, the subcategory “d-” has remained the same.

BIC Rating System v. 1.01 (2007-2012)

	Percentile		BIC Index Score	Implemented score threshold
Top 25%	>75	Above	40.401	40
Next 25%	50	Above	36.499	36
Next 25%	25	Above	31.643	32
Bottom 25%	<25	all below		

Score range	Score	Rating	BIC Index Performance
≥40	≥63	a+	outperformers
	[51-63]	a	
	[40-51]	a-	
36-40	[39-40]	b+	good performers
	[37-39]	b	
	[36-37]	b-	
32-36	[35-36]	c+	medium performers
	[33-35]	c	
	[32-33]	c-	
<32	[24-32]	d+	underperformers
	[16-24]	d	
	<16	d-	

BIC Rating System v. 1.02 (2007-2017)

	Percentile		BIC Index Score	Implemented score threshold
Top 25%	>75	Above	43.410	43
Next 25%	50	Above	38.805	39
Next 25%	25	Above	33.714	34
Bottom 25%	<25	all below		

Score range	Score	Rating	BIC Index Performance
≥43	≥64	a+	outperformers
	[53-64]	a	
	[43-53]	a-	
39-43	[42-43]	b+	good performers
	[40-42]	b	
	[39-40]	b-	
34-39	[38-39]	c+	medium performers
	[35-38]	c	
	[34-35]	c-	
<34	[26-34]	d+	underperformers
	[16-26]	d	
	<16	d-	

Distribution of the BIC Index scores based on the BIC Rating System v. 1.02 vs v. 1.01



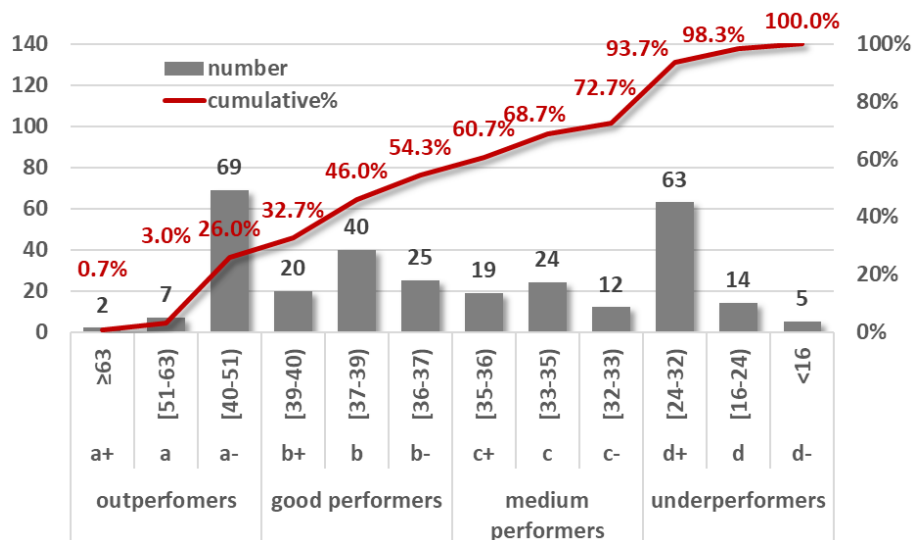
From the implementation of BIC Rating System v. 1.02, we have a new distribution of the **50 sectors** for the period **2007-2017**, based on the BIC Index scores.

Based on the cumulative distribution of sectors of the Greek economy, in the new rating system v. 1.02, the percentage of **outperformers** is **slightly increased** (26.7% versus 26% in v. 1.01). On the other hand, the share of **good performers** has **fallen behind** (21.5% in v. 1.02 versus 28.3% in v. 1.01).

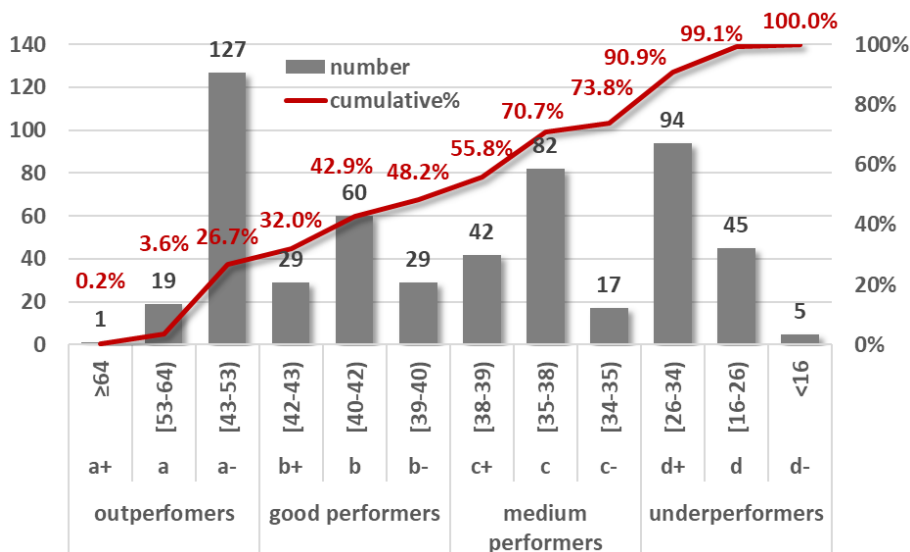
The percentage of **medium performers** has witnessed an increase based on the new BIC Rating System v. 1.02 (25.6% versus 18.3% in v. 1.01). Finally, the share of **underperformers** is **lower** (26.2% in v. 1.02 versus 27.3% in v. 1.01).

Distribution of BIC Index scores and the cumulative percentages of 50 sectors

BIC Rating System v. 1.01 (2007-2012)



BIC Rating System v. 1.02 (2007-2017)



1. Analytical assessment tools | key findings

2. Presentation of BIC Index results

3. Presentation of BIC Rating System v. 1.02 results

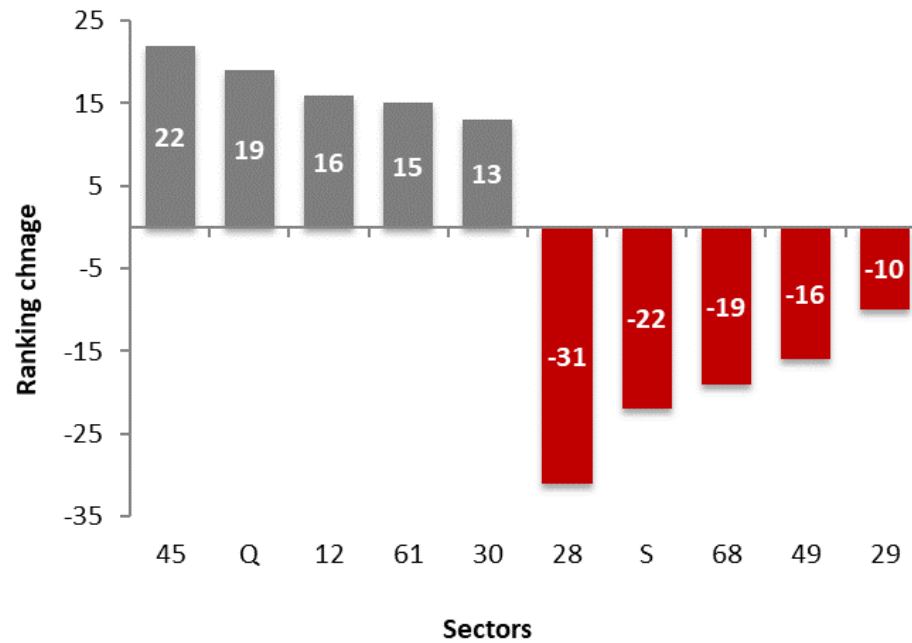
4. Appendices

4a. Methodology of calculating BIC Index

4b. Methodology of calculating BIC Rating System v. 1.02

4c. Additional presentation of results; 2017

The sectors with the 5 largest positive and negative changes in the BIC Index ranking between 2016-2017

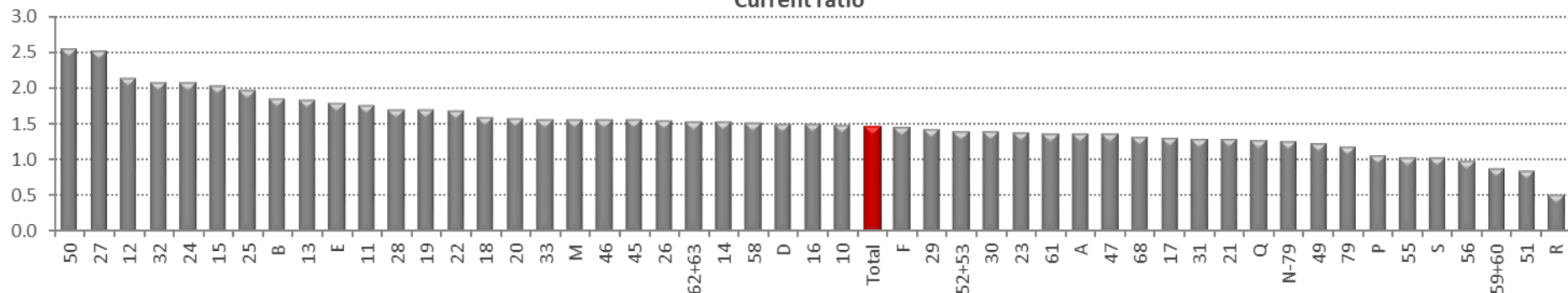


Liquidity; 2017

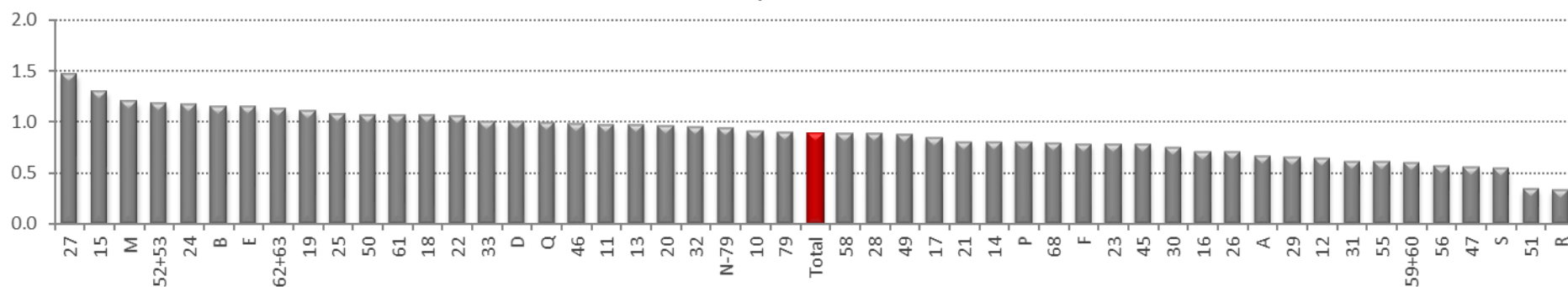
Performance of examined ratios per sector



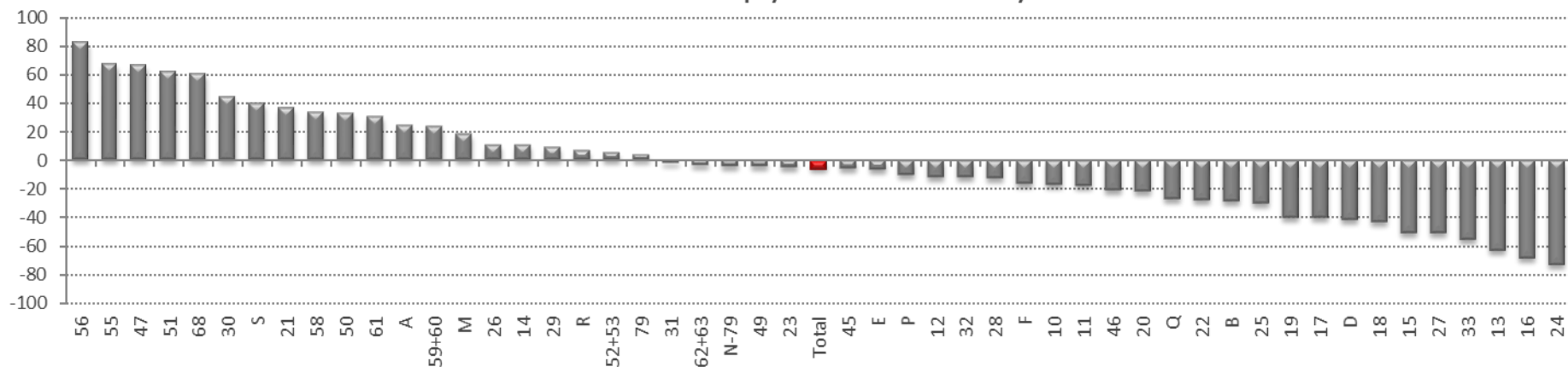
Current ratio



Quickratio

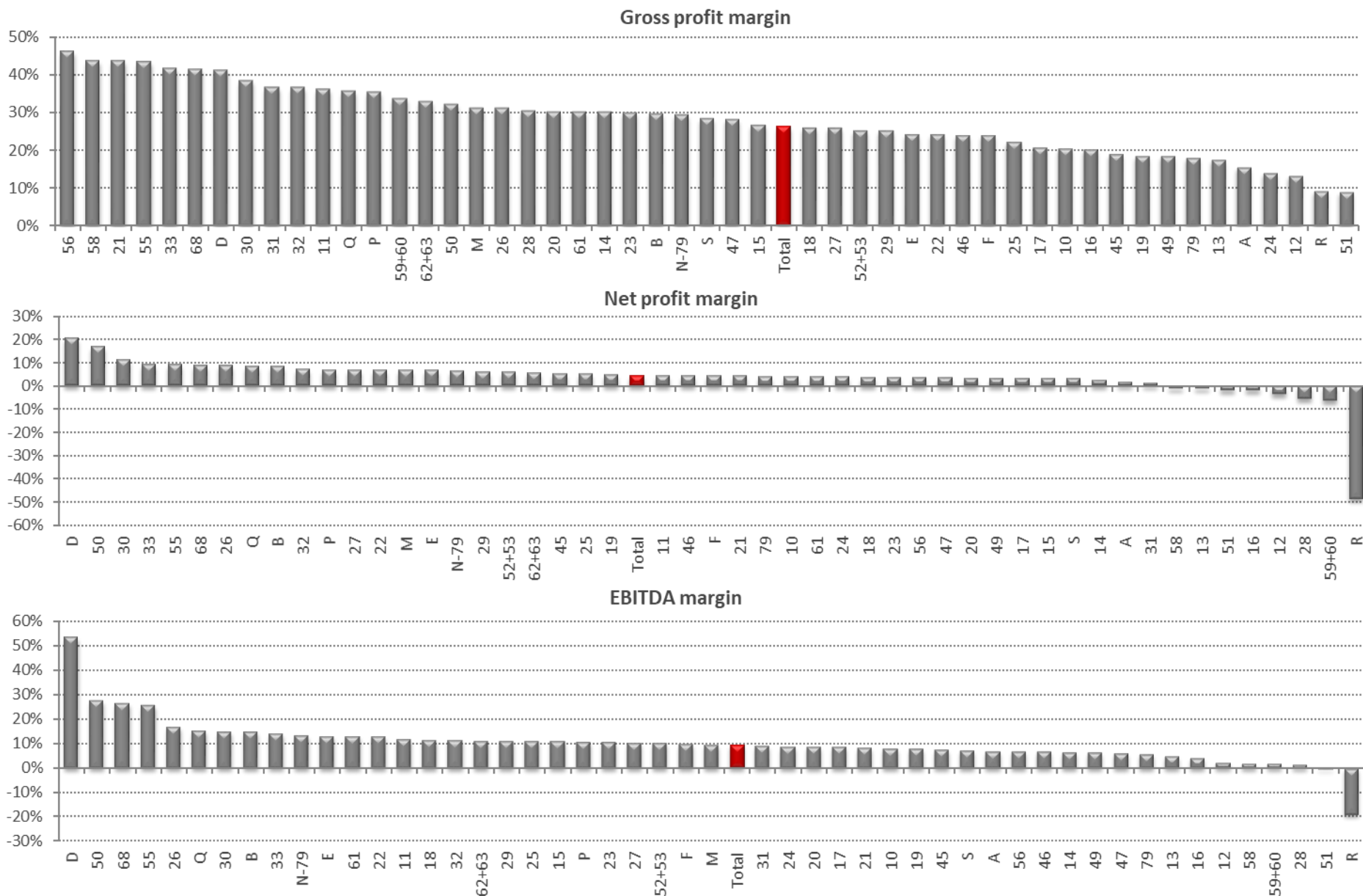


Difference between payment and collection days



Efficiency; 2017

Performance of examined ratios per sector (a)

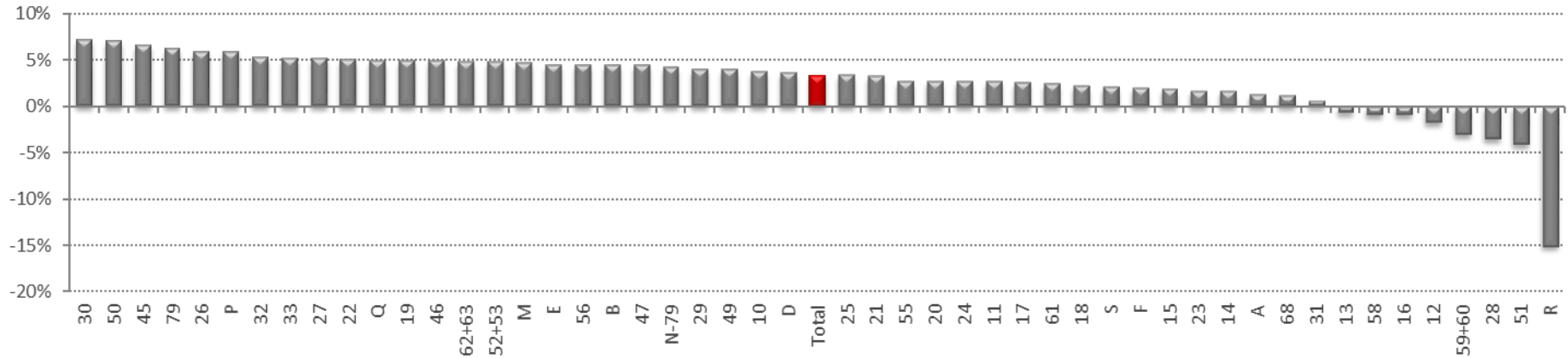


Efficiency; 2017

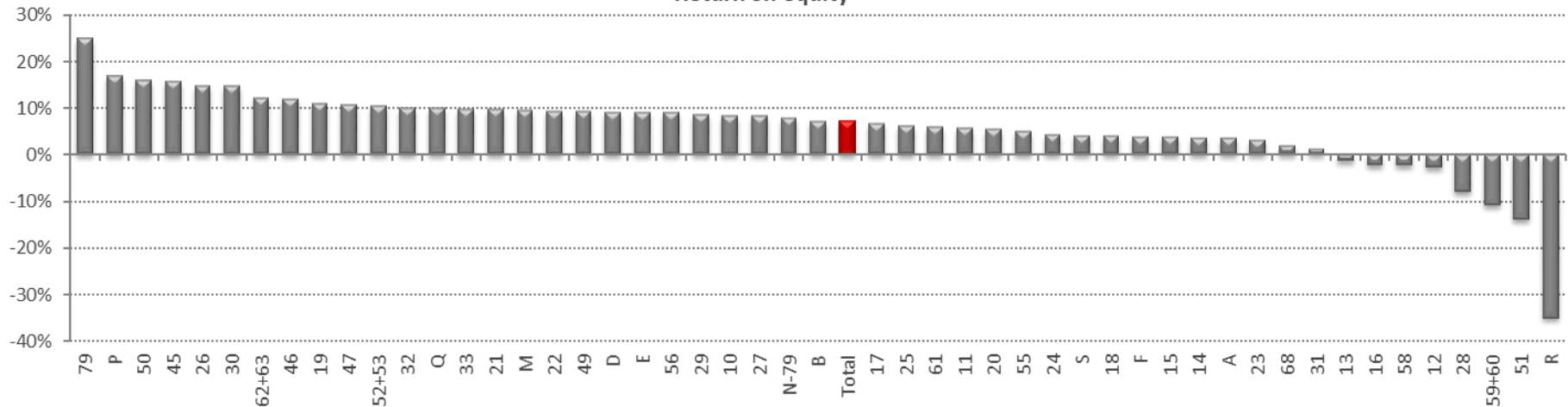
Performance of examined ratios per sector (b)



Return on total assets



Return on equity

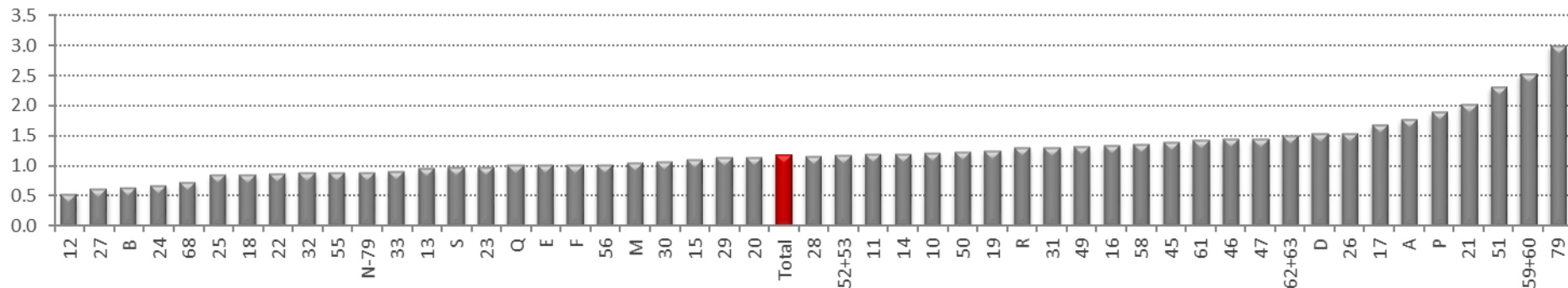


Capital structure; 2017

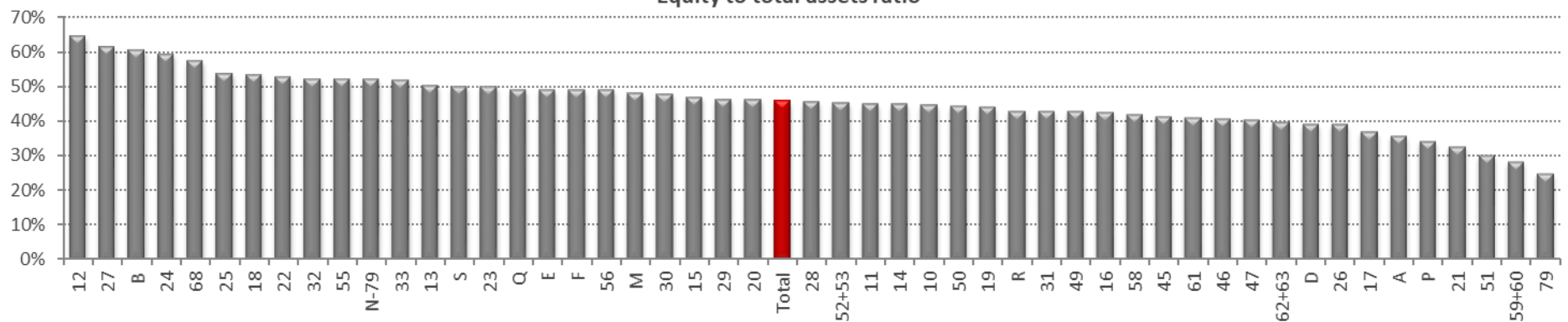
Performance of examined ratios per sector (a)



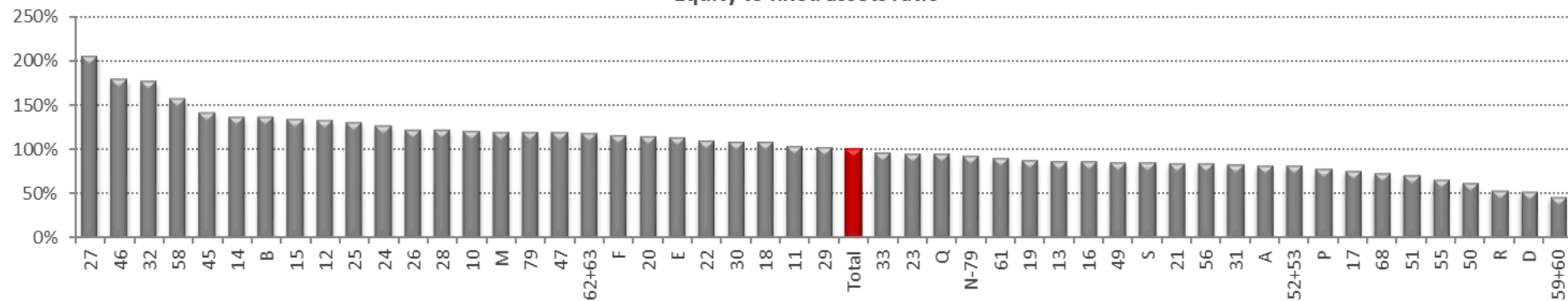
Debt to equity ratio



Equity to total assets ratio



Equity to fixed assets ratio

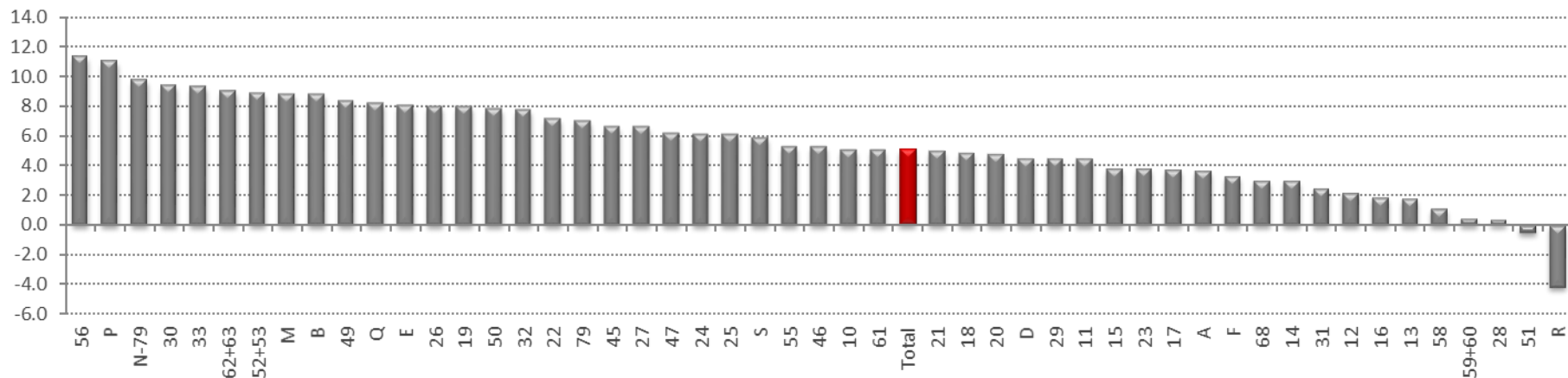


Capital structure; 2017

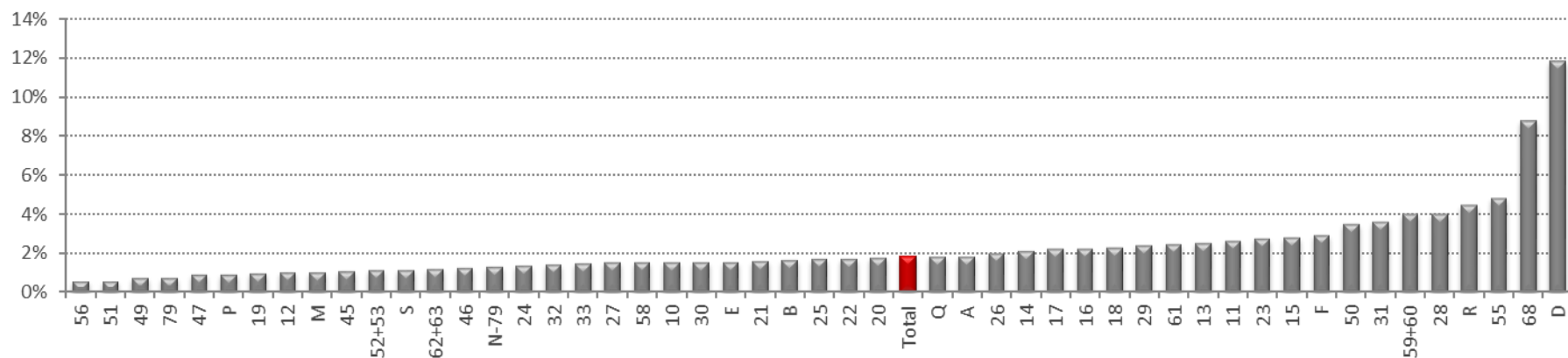
Performance of examined ratios per sector (b)



Times interest earned ratio



Interest expenses to turnover and operating revenue ratio



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