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Accounting Performance of the Leading Companies in the Construction Sector in Brazil during the Period 2009-2012

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***Abstract*—**The construction industry has been demonstrating increased growth and importance in Brazil's national economic development. This study aims to evaluate the financial performance of the leading companies in the construction sector in Brazil in the period from 2009 to 2012. An analysis is made of the capital structure, liquidity, and profitability of the six largest companies in the construction sector in Brazil: Brookfield, Cyrela, Gafisa, MRV, PDG and Rossi. The results are then compared with standard industry ratios. It was found that among the companies analyzed, MRV and Cyrela showed the best relative performance in the period under consideration.

***Keywords*—**Accounting ratios, construction, financial performance.

I. Introduction

IN Brazil, the construction market is becoming increasingly competitive, forcing companies to improve their performance in order to gain advantages over competitors. Given the recent changes in the business environment, especially after the global financial crisis of 2008, the major national construction companies are being pressured to change their production processes so as to reduce costs and adapt their products to market conditions.

In order to survive, organizations must obtain resources of different types – financial, human, and material – which are transformed into goods and services and placed on the market to meet certain needs. In a feedback process, the consequences of these operations return to the company in the form of revenue and profit. It is safe to say that the relationship with the external environment is a key factor in the existence of organizations. Therefore, understanding what this environment is made up of, and how it is organized, is essential for the management of companies [1].

Information on macroeconomic variables, government policies relevant to the sector, and the financial conditions of organizations, are all required for making an assessment of the performance of companies in a non-static economic environment [10].

By means of the financial statements prepared by a company, conclusions can be drawn regarding its economic and financial position. A balance sheet analysis is developed based on these financial performance calculated [3]. It is a document that extracts key information from the data presented by these statements, and makes possible an evaluation – in relation to both the past and future of company – of a company's assets and decisions [9].

The article presents an analysis of the financial statements of the six most important Brazilian construction companies listed on the Bovespa Index (São Paulo Stock Exchange). The objective of this study is to compare the performance of each of these six firms, using a type of analysis that is widely used for the formation of investment portfolios. For this study, we used as parameters for analysis the accounting ratios of liquidity, capital structure, and profitability, calculated on the basis of information presented in the financial statements published by each of these firms during the years 2009-2012.

II. Literature Review

The time period selected this article for analyzing the financial performance of the construction industry in Brazil is that of 2009 to 2012, a period coinciding with the recovery from the global financial crisis of 2008.

After the shocks to the U.S. banking system in mid-2008, a series of macroeconomic measures were adopted in order to help not only the banking sector, but also other large firms suffering from lack of liquidity. Since then, one of the most discussed topics regarding the global macroeconomic scenario has been that of "stimulus". With the lowering of interest rates to a level of close to zero, most of the major economic powers planned strategies that would allow for economic growth. Through so-called "quantitative easing measures" (QEs), the major central banks of the world acquired the " junk bonds" of companies from various sectors, in an attempt to raise the capacity of market liquidity and restore pre-crisis patterns of production and consumption.

The recovery proved to be slow, as the unemployment rate remained stagnant with averages close to 16.5% in Europe and 7.5% in the U.S. [11]. The U.S. housing sector remained weak, with prices down up to 15% per year since the crisis began, resulting in millions of foreclosures.

According to [11], the growth rate of real GDP (Gross Domestic Product) between 2008 and 2012 of the G7 countries, which comprise of the world's largest economies,

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was directly impacted by the crisis. The U.S., Germany, and Canada all showed negative growth in 2008 and 2009, and began to recover only in the beginning of 2010. The United Kingdom, Japan, and Italy lost approximately four percentage points of real growth over a four-year period, recovering only in the second half of 2012.

From 2008 to 2012, the Brazilian GDP showed an average growth of around 2.8% per year. Industrial production remained virtually stagnant throughout the period, and the unemployment rate for the economically active population was 5.3% in 2012 [7]. In Brazil, in relative terms, the impact of the international financial crisis of 2008 was less severe than it was for the economies of Europe and the U.S. Macroeconomic measures adopted internally followed the same pattern as those adopted in other countries, increasing liquidity and strengthening household consumption via credit stimulus. Stimulus policies for combating the effects of the crisis were employed in various sectors of the national economy, such as the adoption by the Federal Government of a policy of reducing taxes on automobiles and durable goods in order to increase consumption.

Regarding the credit stimulus measures adopted in Brazil beginning in 2008, most important were those related to the provision of funds for housing and infrastructure projects, tax exemptions for certain building materials, expansion of resources allocated to the "My House, My Life" (MCMV) program, and increased funds for the Growth Acceleration Program (PAC). All of these measures benefitted the construction industry. The MCMV program is a federal government initiative to reduce the housing deficit. It involves special interest rates, subsidies for low-income families, and financing by public banks[1]. In 2009 and 2010, this program financed 732,317 housing units through the Caixa Econômica Federal (a federal government bank), providing a total of 42.04 billion Brazilian reals (US$ 17.8 billion) in credit.

The construction industry has expanded with increased housing demand, companies in the sector have benefited from the situation, and this industry has thus become one of the major economic sectors in the Brazilian economy.

The construction industry in the country is growing, and it contributes to regional development and job creation. From 2004 to 2010, this sector grew 42.41%, which represents an average annual rate of 5.18%. Analyzing the data on the number of persons employed (directly and indirectly) in Brazil, it may be seen that in 2009, 7.2% of employment was in the construction area. It may also be observed that from 2000 to 2009 there was a considerable expansion in employment in this area, as the number of employees working directly or indirectly in the sector increased by 29.2%, equivalent to 1.56 million new jobs [4].

For the period of 2009 to 2013, a decrease in activity was recorded only in the first of these years. According to the Brazilian Chamber of the Construction Industry (CBIC), based on information from the IBGE, the changes in rates of quarterly growth during 2009 were -5.7%, -3.7%, -2.2% and 8.4% respectively, resulting in an accumulated decrease of 0.7%. In 2010, the sector rebounded strongly, showing a growth of over 11%. The year of 2011 saw growth of 3.6%. Despite growth in 2011 having been more modest compared to the previous year, there were positive figures for all quarters. For the year 2012 the sector's growth was only 1.4%. This result was impacted by the weak performance shown during the third and fourth quarters (1.2% and -0.2%, respectively).

III. Methodology

In general, financial ratios enable a better understanding of accounting statements, making available information for analysis of the comparative performance of different companies.

According to [9], Wall presented the first model of balance analysis using ratios in 1919; Fitz Patrick in 1932 was the first to study balance indicators, selecting companies which had failed in the period from 1920 to 1929; Beaver, in 1967, performed the first modern analyses of accounting indicators for the prediction of bankruptcy.

The main importance of financial ratios analysis is that it allows for an understanding of the interrelationship between the various accounts in different accounting statements, highlighting certain critical aspects of the situation of a company: financial situation, indebtedness, and economic situation [8].

A statement financial analysis performed using ratios entails the calculation of quotients that relate amounts in the financial statements, in order to construct a panorama of company valuation. There are basically two forms of analysis when using financial ratios: cross-sectional (comparing different companies in the same sector in the same period of time) and time-series (current performance of a company in relation to its past performance) [6].

The ratios, which show the financial basis of the company, can be classified into capital structure, liquidity, and profitability. Liquidity indicators measure the company's ability to pay and are constructed based on the relationship between assets and liabilities. Liquidity indicators show the ability of the company's managers to manage the financial cycle. A company with good liquidity ratios can afford to pay its debts. Capital structure ratios are used primarily to measure the composition (structure) of the liability account sources of resources of a company, and their relative share in relation to equity. They also provide information for assessing the degree of financial commitment of a company to its creditors (mainly financial institutions) and its ability to meet financial

[1]The "My House, My Life" (Minha Casa, Minha Vida) program, established by Law 11.977/2009, aims to create mechanisms to encourage the production and purchase of new housing, or the redevelopment of urban property and rural housing, for families with monthly incomes of up to R$4,650 (approximately US$2,000). The program's goal is to finance the construction of two million homes by mid-2014.

The first phase of the Growth Acceleration Program, or PAC (Programa de Aceleração do Crescimento), instituted according to Law 11.578/2007, occurred in 2007 and 2008 and dealt with the obligatory transfer of financial resources to the Subsidy Program for Housing of Social Interest (Programa de Subsídio à Habitação de Interesse Social – PSH). In 2011, the second phase of the program (PAC 2) was launched, with the same objectives as the previous one. From 2011 to 2014, the government expects to make investments of approximately R$955 billion (US$400 billion).

commitments in the long term. Profitability ratios indicate the return that the company can receive on its business [2].

For this study we calculated the rates of capital structure, liquidity, and profitability for the six largest companies in the construction sector in Brazil: Brookfield (BISA3), Cyrela (CYRE3), Gafisa (GFSA3), MRV (MRVE3), PDG (PDGR3), and Rossi (RSID3), performing a cross-sectional analysis. The data were taken from the accounting statements published by each firm (balance sheet and income statement) and standardized[2].

The ratios were calculated according to the following methodology [9]:

- Capital structure: participation of third party capital ((third party capital/net equity)*100); debt composition ((current liabilities/third party capital)*100); fixed of net equity ((fixed assets/net equity)*100); fixed of non-current resources (fixed assets/(net equity + long-term liabilities))*100)
- Liquidity: general liquidity ((current assets + long term receivables)/(current liabilities + long-term liabilities)); current liquidity (current assets/current liabilities); quick ratio ((current assets - inventories)/current liabilities)
- Profitability: asset turnover (net sales/assets); net profit margin ((net income/net sales)*100); return on assets ((net income/assets)*100); return on net equity ((net income/net equity)*100)

Aside from the calculation of the ratios of the companies being surveyed, standard ratios for the construction industry were included. In addition, a determination of relative importance for each ratio (stable, good, excellent, poor, very poor) was established in order to allow the analysis to acquire consistency and objectivity.

For the calculation of the standard indexes the median was used, as it is a statistical tool that allows for the comparison of an element with the universe under study. Aside from the median, 5s decis was used, following the methodology used by [9], [12] and [5], because it enhances the idea of the statistical distribution of the tabulated ratios.

For the interpretation of the ratios of capital structure, 'smaller is better'; for liquidity ratios and profitability, 'bigger is better'. The measurement scale used for each item for which 'bigger is better' is given as follows: stable (variation of 2 percentage points above or below the median); good (variation of between 2.01 and 7 percentage points above the median); excellent: (variation of 7.01 points or more above the median); poor (variation of -2.01 and -7 percentage points below the median) and very poor (variation of -7.01 percentage points or more below the median). An inverse scale was used for the 'smaller is better' interpretation.

[2]According to [9], standardization consists in providing a critique of the accounts in accounting statements, as well a providing an interpretation of them in terms of a previously defined model. Before the data was analyzed and the ratios were calculated for the analysis presented in this paper, there was made a reclassification of the accounts for deferred assets, revaluation reserve and discounted bills, for the purpose of standardizing the accounting statements, as not all companies use these practices.

IV. Analysis and Discussion of Results

To illustrate the results, tables were made that present the quotients of the listed firms in relation to standard indices of the construction industry, and that also present their respective classifications according to the scale of measurement as described in the methodology section above. The symbols used in the cells of the tables refer to the relative importance of each index: very poor (↓); poor (↘); good (↗); excellent (↑) and stable (→).

For the year 2009, according to data in Table I, it may be seen that MRV (with 9) and Cyrela (with 6) had the largest numbers of quotients with ↗ and ↑ symbols (excellent/good) as compared with the other listed firms. In the specific case of MRV, all liquidity and profitability ratios showed positive performance. Overall and current liquidity stand out, with values of 59.3 and 56.11 points, respectively, both above the standard ratios for the industry. Regarding Cyrela, its best performance was in the set of profitability ratios, with values of asset turnover (3.05), net profit margin (6.14), return on assets (3.25), and return on equity (10.2) all above the standard rates.

Brookfield showed the worst performances, having two very poor grades in the liquidity ratios, with general liquidity and the quick ratio being -7.51 and -36.68 points, respectively, below the standard rate for the sector. The company also received three poor grades, in this case for the three ratios of capital structure, all above the standard rate: participation of third party capitol (6.3), fixed of net equity (3.65), and fixed of non-current resources (2.56).

Also in relation to 2009, it may be observed that Rossi presented four notes of very poor and two of poor. What stand out in the analysis are the levels of net profit margin (13.18), return on net liquidity (-9.26), asset turnover (-2.09), and return on assets (-4.28), all below the standard ratio for this year.

Table II shows the results for the year 2010. During this period, MRV once again had the best relative performance, with six notes of excellent/good and five notes of stable. Standing out are profitability ratios such as net profit margin (9.81), return on assets (4.87), and return on equity (8.67), all higher than the standard rate for the period.

Cyrela's numbers declined with respect to ratios of profitability when compared to the previous year. Four of the indices that outperformed the standard ratios in 2009 remained stable in 2010. Rossi presented ratios that were still too tentative to be considered a recovery performance. With regard to profitability ratios, the main highlight was asset turnover, which increased from -2.09 points below the standard rate in 2009 to 3.4 above in 2010.

Gafisa showed improvement over the previous year in the indices of capital structure and liquidity, with four excellent grades. Of note was the participation of third party capital, which changed from 87.26 points above the standard index in 2009 to 8.59 points below the standard in 2010. Brookfield, for the second year in a row, showed weak relative performance, with five notes of very poor and one of poor, a notable fact being that all of the liquidity ratios were evaluated

as very poor. PDG presented comparative improvement between the years 2009 and 2010, mainly in current liquidity and quick ratio. These ratios jumped from -4.27 and -8.84 in 2009 to 5.03 and 3.8 in 2010, respectively.

TABLE I
RATIOS OF COMPANIES IN RELATION TO INDUSTRY-STANDARD INDICES FOR 2009

	Median	Brookfield	Cyrela	Gafisa	MRV	PDG	Rossi
Capital structure							
Participation of third-party capital	125.44	↘ 6.3	↓ 31.56	↓ 87.26	↑ -52.64	↑ -18.35	↗ -6.3
Debt composition	48.62	↑ -12.83	↗ -2.37	↑ -9.57	↓ 9.08	↘ 2.37	↓ 13.55
Fixed of net equity	8.48	↘ 3.65	↗ -2.47	↘ 2.47	↗ -5.68	↘ 4.01	↗ -6.72
Fixed of non-current resources	4.01	↘ 2.56	→ -0.76	→ 0.76	→ -1.87	↘ 4.18	↗ -2.8
Liquidity							
Overall liquidity	174.21	↓ -7.51	↓ -14.34	↓ -32.35	↑ 59.3	↑ 7.51	↑ 8.24
Current liquidity	242.78	↑ 34.55	↓ -15.59	↗ 4.27	↑ 56.11	↘ -4.27	↓ -7.83
Quick ratio	167.83	↓ -36.68	↓ -10.45	↑ 11.94	↑ 41.73	↓ -8.84	↑ 8.84
Profitability							
Asset turnover	35.7	↘ -3.35	↗ 3.05	↗ 4.84	↗ 2.09	↘ -3.04	↘ -2.09
Net profit margin	14.09	↘ -2.95	↗ 6.14	↓ -9.36	↑ 8.61	↗ 2.95	↓ -13.18
Return on assets	4.58	→ -0.98	↗ 3.25	↘ -2.67	↗ 3.99	→ 0.98	↘ -4.28
Return on net liquidity	9.94	→ -1.59	↑ 10.2	↘ -3.94	↗ 4.89	→ 1.59	↓ -9.26

TABLE II
RATIOS OF COMPANIES IN RELATION TO INDUSTRY-STANDARD INDICES FOR 2010

	Mediana	Brookfield	Cyrela	Gafisa	MRV	PDG	Rossi
Capital structure							
Participation of third-party capital	157,49	↓ 15,31	→ -0,28	↑ -8,59	↑ -35,03	→ 0,46	→ 0,28
Debt composition	48,71	↗ -2,56	↘ 4,57	↑ -11,64	→ 0,03	→ -0,03	→ 0,67
Fixed of net equity	7,87	↓ 12,15	↗ -2,20	→ 0,13	→ -0,13	↓ 10,38	↗ -4,90
Fixed of non-current resources	4,44	↘ 5,93	→ -1,17	→ -0,31	→ 0,31	↘ 5,64	↗ -2,79
Liquidity							
Overall liquidity	160,75	↓ -4,47	→ -0,75	→ 1,03	↑ 14,59	↓ -9,00	→ 0,75
Current liquidity	246,18	↓ -81,14	↓ -37,34	↑ 93,65	↗ 5,43	↗ 5,03	↘ -5,03
Quick ratio	175,08	↓ -73,28	↓ -44,69	↑ 79,65	→ 1,85	↗ 3,80	→ -1,85
Profitability							
Asset turnover	42,54	↗ 2,01	→ -1,94	↘ -4,90	→ 1,94	↓ -8,55	↗ 3,40
Net profit margin	12,54	→ -1,47	→ 1,47	↘ -4,06	↑ 9,81	↗ 2,77	↘ -4,54
Return on assets	5,07	→ -0,14	→ 0,62	→ -1,88	↗ 4,87	→ 0,14	→ -1,39
Return on net liquidity	13,44	→ 0,02	→ 1,19	↘ -5,50	↑ 8,67	→ -0,02	↘ -3,96

In 2011 (Table III) MRV once again had the best performance with eight grades of excellent/good and two grades of stable. The highlights are the profitability ratios. Net profit margin and return on equity had 13.27 and 13.94 points, respectively, above the standard rate for the period. Overall liquidity, at 17.37 points above the standard rate, and the participation of third-party capital, at 43.98 points below the standard index, also stood out in the period.

Cyrela showed a recovery from the previous year (2010), with seven levels in 2011 having excellent/good notes. Despite the considerable improvement in performance, the ratios of current liquidity and quick ratio are still classified as poor.

Rossi showed improvement in performance compared to the previous year, mainly in the liquidity ratios, with current liquidity and quick ratio increasing respectively from 5.03 and 1.85 points below the standard rate to 34.41 and 31.50 index points above.

PDG also presented improvement between the years 2010 and 2011, mainly in the rates of overall liquidity, current liquidity, and quick ratio, which jumped respectively from -9.00, 5.03, and -3.80 in 2010 to 6.08, 47.39, and 40.40. Another highlight was the participation of third party capital, which went from 0.46 to -25.55. The classification of this item thus went from stable to good.

Brookfield showed weak relative performance for the third consecutive year, with four very poor grades and four poor grades. Performance especially worsened in the profitability ratios, when compared to 2010. The company with the worst relative performance in 2011 was Gafisa, with eight very poor grades and one poor grade.

In 2012 (Table IV) the best performance was by Cyrela, with nine excellent/good grades. The increases were mainly in profitability and overall liquidity. Also important was a significant reduction in the participation of third-party capital, which went from 16.41 points below the standard in 2011 to 71.41 below it in 2012.

TABLE III
RATIOS OF COMPANIES IN RELATION TO INDUSTRY-STANDARD INDICES FOR 2011

	Mediana	Brookfield	Cyrela	Gafisa	MRV	PDG	Rossi
Capital structure							
Participation of third-party capital	193,59	↓ 16,41	↑ -16,41	↓ 52,47	↑ -43,98	↑ -25,55	↓ 65,88
Debt composition	48,35	↑ -13,84	→ 1,91	↓ 22,90	↘ 3,98	→ -1,91	↗ -3,60
Fixed of net equity	9,7	↓ 11,98	↗ -3,76	→ 0,58	→ -0,58	↓ 7,20	↗ -2,35
Fixed of non-current resources	5,67	↘ 3,46	↗ -2,51	→ 0,35	→ -0,35	↘ 3,22	↗ -2,65
Liquidity							
Overall liquidity	143,37	↘ -6,08	↑ 9,71	↘ -6,91	↑ 17,37	↗ 6,08	↓ -7,67
Current liquidity	204,56	↓ -9,86	↘ -4,23	↓ -52,68	↗ 4,23	↑ 47,39	↑ 34,41
Quick ratio	137,78	↓ -11,02	↘ -6,43	↓ -28,45	↗ 6,43	↑ 40,40	↑ 31,50
Profitability							
Asset turnover	40,41	→ 0,55	↗ 4,49	↓ -9,48	↗ 3,41	→ -0,55	→ -0,65
Net profit margin	7,06	↘ -2,60	↗ 2,60	↓ -37,85	↑ 13,27	↗ 3,18	↘ -4,29
Return on assets	2,95	→ -1,13	→ 1,39	↓ -12,48	↗ 5,96	→ 1,13	→ -1,85
Return on net liquidity	8,3	↘ -2,64	↗ 3,73	↓ -41,25	↑ 13,94	↗ 2,64	↘ -4,34

MRV, which had the best relative performance in previous years, showed a worsening in the ratios of profitability in 2012 compared with the previous year. It went from having eight indexes with performance above the standard in 2011 to only six in 2012. There was decay in the rates of current and dry liquidity, which increased from 4.23 and 6.43 points above the standard rate to 31.91 and 24.95 points below the standard rate, respectively.

PDG also showed a worsening in 2011 compared to 2012 in the ratios of profitability. In 2011, the company had six indices presenting performance above the standard rate and only grade of poor. In 2012 this changed to four grades of excellent/good and five grades of very poor. The worst declines were related to the set of indices for profitability, with changes in the values of asset turnover (0.55 to 8.51), net profit margin (3.18 to 45.10), return on assets (1.13 to 11.88), and return on net equity (2.65 to 37.30), all showing worse performance compared to the previous year.

Rossi also showed a worsening in 2012 with respect to the profitability quotients when compared with the previous year. It went from having five grades of excellent/good and two grades of very poor, to having three grades of good and five notes of very poor. The ratios most affected were the indexes of current liquidity and quick ratio.

In 2012, Gafisa showed a recovery from the previous year. The positive performance is mainly related to the indices of profitability and of current liquidity and quick ratio.

Brookfield showed weak relative performance for the fourth consecutive year, and worsened with respect to the profitability quotients when compared to 2011. It went from having four grades of very poor to having seven very poor grades. Notable are the performances for current liquidity and quick ratio, which worsened significantly from 2011 to 2012, going respectively from 9.86 and 11.02 to 64.30 and 51.75 points below the standard.

TABLE IV
RATIOS OF COMPANIES IN RELATION TO INDUSTRY-STANDARD INDICES FOR 2012

	Mediana	Brookfield	Cyrela	Gafisa	MRV	PDG	Rossi
Capital structure							
Participation of third-party capital	227,84	↓ 32,36	↑ -71,41	↓ 9,08	↑ -56,10	↑ -9,08	↓ 30,37
Debt composition	47,64	↑ -4,21	↘ 3,21	↗ -2,50	↘ 4,29	↑ -7,13	↘ 2,50
Fixed of net equity	11,79	↓ 9,42	↗ -6,78	→ -1,50	→ 1,50	↓ 7,13	↗ -6,44
Fixed of non-current resources	5,88	↘ 2,70	↗ -3,05	→ -1,40	→ 1,40	↘ 2,35	↗ -3,54
Liquidity							
Overall liquidity	137,47	↓ -7,18	↑ 23,26	→ 0,40	↑ 13,03	→ -0,40	→ -0,81
Current liquidity	221,52	↓ -64,30	↗ 5,46	↑ 29,16	↓ -31,09	↑ 11,33	↘ -5,46
Quick ratio	160,65	↓ -51,75	↘ -3,23	↑ 16,06	↓ -24,95	↑ 27,47	↗ 3,23
Profitability							
Asset turnover	35,69	↘ -4,04	↗ 6,52	↑ 7,89	↗ 2,71	↓ -8,51	↘ -2,71
Net profit margin	-4,75	↓ -7,17	↑ 18,09	↗ 2,82	↑ 18,23	↓ -45,10	↘ -2,82
Return on assets	-1,67	↘ -2,10	↑ 7,30	→ 0,83	↗ 6,85	↓ -11,88	→ -0,83
Return on net liquidity	-5,89	↓ -7,70	↑ 20,33	↗ 3,06	↑ 19,96	↓ -37,30	↘ -3,06

V. CONCLUDING REMARKS

The objective of this study was to present the economic and financial position of the leading companies in one of the most important sectors of the Brazilian economy today, the construction industry. The ratings were based on performance during a turbulent period in the international arena, with governments taking stringent measures to maintain the growth of their countries, even though this growth had been slow in

the case of developed economies.

Through its indicators, financial statements balance analysis allows investors in the market to have a better view of the financial position of companies and as a consequence reduce the risk of their investment decisions, selecting companies with greater financial and economic potential.

Through the analysis presented here, it was found that the performance Cyrela and MRV stood out. In relation to the standard ratios for the sector, Cyrela did not show outstanding performance in 2009 and 2010, but in the following years (2011-2012) it achieved good ratios that marked it definitely as one of the best of the companies analyzed.

MRV showed good performance in the sectoral analysis for all years surveyed, and had the best relative performance in three of the years analyzed (2009, 2010 and 2011).

Gafisa, PDG and Rossi showed very volatile numbers, and their ratios in relation to industry averages proved not to be indicators that put them at the higher evaluation levels. Throughout the period of analysis, Brookfield had the worst performance among the companies surveyed.

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