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Leverage and Profitability of Newspaper Publishers a Financial Analysis of the Portuguese Industry (2008-2019)

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DISCLOSURE STATEMENT
The authors report there are no competing interests to declare.

ABSTRACT

As is the case with any economic activity, the challenge of guaranteeing the economic and financial sustainability of the newspaper industry is recurrent, and the challenge is redoubled in periods of industry transformation, as has occurred in the media business, where there are various levels of disruption, particularly in terms of the financing model (insufficient traditional sources of revenue: reader revenue and advertiser revenue) and forms of product access and distribution (insufficient physical support and newsstands). The migration to digital media necessarily implies new management strategies and practices in order to optimize costs and diversify the revenues that can be earned by newspaper companies. In this context, this article examines the recent evolution of the financial profitability of the newspaper publishers in Portugal. Financial profitability depends on both the economic profitability and the financial structure (i.e., leverage) of companies. Newspaper companies accumulated very high levels of debt because of the sector crisis. The financial analysis in this article reveals that almost a half of newspaper publishers benefited from positive leverage effects, recording higher financial profitability than economic profitability. Companies that benefited from positive leverage effects were the more leveraged. High leverage was positive for those newspaper companies that made investments whose returns offset their debt costs.

KEYWORDS: Profitability, profit, business model, newspapers, management and diversification.

INTRODUCTION

In the last two decades, the newspaper publishing sector experienced two crises. First, the crisis caused by digitalization, which undermined the foundations of the legacy business model of the industry. Second, the economic crisis that followed the financial crash of 2008. Both crises led to a significant drop in revenues for newspaper publishing companies (Björkroth & Grönlund, 2018; Doyle, 2013; Kind et al., 2009); some went bankrupt and many others survived for several years with negative returns while struggling to adapt to digitalization (Cawley, 2019; Faustino, 2022). While most of the academic literature has made a pessimistic reading of the newspaper crisis (Ferrier et al., 2016; Siles & Boczkowski, 2012; Starr, 2012), some relatively recent studies have focused on newspaper companies that managed to maintain positive returns or even reported that the sector as a whole was able to recover by adapting to new market conditions (Edge, 2014, 2019; Rios-Rodríguez et al., 2022; Van der Burg & Van den Bulck, 2017).

These works analyze newspaper companies' performance by focusing on economic profitability but overlooking financial profitability. Indeed, economic profitability is key to business success as it indicates a company's ability to generate operating profits from its total assets, regardless of how these have been financed. The most common indicator to measure it is Return on Assets (ROA), calculated as the ratio of Earnings Before Interest and Taxes (EBIT) to total assets. However, financial profitability is even more relevant because it measures the ability of the company's equity to generate profits for shareholders, who ultimately invest in the company. It is measured by Return on Equity (ROE), calculated as the ratio of net income (i.e., net of interest and taxes) to the company's net equity. Thus, ROE is conditioned by both the operating results and the financial results of the companies.

LITERATURE REVIEW

In Portugal, the property concentration titles issue has been more focused on the daily press of general information. In effect, the high concentration level revealed by the daily press industry of national circulation it is not a novelty. In fact, given the small dimension of the Portuguese market and the specific features of the press industry (where the learning economies, scale economies and scope economies are very frequent), we can expect the existence of an endogenous trend for the emergence of market concentration in the daily national press. Despite the existence of concentration levels, as it was proved in this study, one should emphasize that these groups can hardly exploit their dominant position in the market of the national daily press. The obstacles against the entrance in the press are relatively limited; in contrast with the radio or TV areas, which operators need licenses, in the press case there is freedom of entrance, whether because licenses are not needed or the dynamics of the market itself allow the creation of alternatives and replacement products. In this way, one can affirm that the legal possibility of free entrance without the need to have a license to work limits the arbitrary power of the incumbent companies (already established in the market), (Faustino, 2012).

According to Wallez (2017:172), “in the real life of the newspaper business, the advertiser has sometimes felt frustrated due to the lack of tangible data on how many readers have been exposed to the ad”. The rate has been calculated by total circulation, but the numbers of people who look at an ad a few seconds are forever unknown. Wallez (2017: 105) also mentions that “many publishers consider their product as just a business, forgetting the other dimensions that have shaped the press in previous centuries. A new management system has emerged, based on differentiated units, each with a specialized role and function: (1) pressroom, collation and editing, (2) production (typesetting, printing, folding), (3) distribution and circulation, (4) advertising, (5) accounting.”

The combination of increasing convergence, automation and standardization of business and creative processes, on the one hand, and the disruption of consumer and business models, market fragmentation, and the entry of new companies from other sectors (technology and telecommunications, for example) on the other, has contributed to the adoption of management methods and practices that are more oriented towards market demand perspectives. However, none of these market approaches are easy, nor do they guarantee economic and financial success; these practices challenge the conventional cultures of media companies and pose significant challenges for the sustainability of the newspaper industry. In Table 2, through the general classification, we can observe some aspects that reflect characteristics associated with traditional media management versus a contemporary approach to media management.

Table 1: Aspects associated with traditional and modern media management

Traditional management approach	Contemporary management approach
Cultural products	Economical products
Single-media products	Multimedia products
Low-tech products	High-tech products
Products with a limited investment portfolio	Products with large investment portfolios
Products with clear barriers or limits	Products without clear barriers or limits

Single-use products	Reusable products
Journalistic products	Journalistic and marketing products
Single-media management	Multimedia management
Limited areas of knowledge required	Broad areas of necessary knowledge

Source: Faustino, Paulo & Ribeiro, Luísa, 2016

Although there are specific differences inherent in the media business, in general these organizations tend to adopt management practices applied in other industries and adopt a more market-oriented approach. This also reflects the tendency for media products to be seen more and more as a commodity, rather than a primarily symbolic good or the result of a creative process with intrinsic value. Thus, the management practices adopted by media companies increasingly approximate those of other industries.

According to Doyle (2013), the overall performance of the economy has a tremendous impact on production in all sectors, including the media. The reason is obvious: newspapers depend on advertising as one of their two main sources of income or dual funding model: selling editorial content and selling advertising content. Despite recent divergences and uncertainties regarding the sustainability of newspaper publishers' business models, analysis of long-term trends in advertising suggests that there is a strong correlation between the performance of the economy as a whole and the levels of investment and development of advertising activity. Many jobs have been cut at newspapers, without improving current results and without generating cash flow to repay operations and financial commitments; many newspaper publishers are closing down, others are increasing their debt and few have prospered solidly after the turn of the millennium.

In the 1970s, integration between sectors of the technology industry initially took place with a growing technical overlap of computer and telecommunications devices and components. In the 1980s, the growing integration of technology also extended - and overlapped - to consumer electronics and office equipment. In the 1990s, integration affected almost all sectors of industrial technology - for example, smartphones combine the technologies of telecommunications, computers, information providers, consumer electronics, television, video games, calculators, cameras, music players and recorders, navigation devices, and many more.

The implications of these transformations are visible in that industries and companies that used to comfortably fill their separate niches are now facing more and more competition from each other. Social media platforms and online consumer access have become challenges for the publishing industry. The old methods of advertising and subscription in the publishing industry seem to be failing in the age of digital transformation. The online advertising industry has faced serious challenges, and the number of people installing ad blockers on their mobile devices has grown.

In the new context, the attitude towards innovation and reorganization of the publishing industry has been supported by the development of business models based on cost reduction strategies and the generation of new revenue streams, including the provision of services adjacent to journalistic activity, such as: organizing seminars, conferences, events, selling content to other organizations - customer publishing and content marketing - among other associated services and products. The media and the journalism industry are largely influenced by the convergence impacted by the digital age and new technologies.

Over the last two decades, newspaper publishers have gone through two main crises. Firstly, the crisis caused by digitalization, which changed the paradigms and foundations of the centuries-old business model based on revenue from product sales and advertising investment. Secondly, the economic crisis that followed the financial collapse of 2008 (also known as the "subprime crisis")1, which affected the entire economy and, of course, advertising investment, which from this period onwards, except for slight fluctuations in the market and the year, never returned to the performance achieved until the end of the first years of the millennium.

For its part, the newspaper companies accumulated large debts over the last decades in an attempt to survive the industry downturn, using the liabilities to grow in size (at least before 2008), to cover losses and to make investments in their digital transformation (Almirón & Segovia, 2012; Casero-Ripollés & Izquierdo-Castillo, 2013; Cawley, 2017; Doyle, 2013; Soloski, 2013). High leverage can result in companies' financial profitability deviating sharply from economic profitability. When the return on assets is higher than the cost of the debt used to finance those assets, leverage has a positive effect on financial profitability. However, if the return on assets is lower than the cost of the debt, leverage has a negative effect on financial profitability. Theoretically, the latter is most likely in highly leveraged companies, which is the case for newspaper publishing industry, as lenders will consider their lending riskier and impose higher interest rates. In extreme cases, a company could report a positive ROA but a negative ROE. Therefore, to have a complete diagnosis of the economic situation of the newspaper

[1] This crisis resulted from a very adverse global economic climate, caused by the bankruptcy of the traditional US investment bank Lehman Brothers. This bankruptcy had a contagion effect on other large financial institutions, which also closed in a very weak situation.

industry, it is also necessary to consider the effects of leverage on financial profitability, which is the aim of this work.

The article is organized as follows: the materials and method employed in the empirical analysis are described in the next section. Then, the findings of the study are presented and discussed. Conclusions and some managerial implications are provided to conclude the study.

MATERIALS AND METHOD

To analyze the effects of leverage on newspaper publishers' performance we carried out an economic and financial analysis of the companies in the Portuguese newspaper industry. The period of study was 2008-2019, considering both the economic recession following the 2008 financial crash and the subsequent economic recovery. In Portugal, the economic recession ended in 2013, Q3 and the economic recovery has gone from 2013, Q4 onwards. The data were obtained from SABI, Bureau van Dijk's database, which includes the financial statements of thousands of Portuguese companies. The selection of companies was made using the primary NACE code 5813, corresponding to newspaper publishing activity. After excluding companies with data inconsistent from an accounting perspective, the sample consisted of 375 companies.

Also, a high percentage of the observations (26%) reported negative net equity - "If ROE is calculated for a firm which has negative equity, ROE takes on the inverse ordinal properties that we would wish for it to display" (Thornblad et al, 2018, p. 3). However, the authors recognize that this option of excluding companies with negative results is not without its critics - as the conclusions state - insofar as, in theory, a company (with negative results) may be able to change the situation for the better in the medium term, through restructuring, innovation and the adoption of good management practices, and manage to be more competitive in the following years. In any case, this circumstance (analyze the ROE of companies with negative performance)could distort the results of the analysis: since ROE is calculated as the ratio of net income to equity; a firm with negative net income and negative equity would show a positive ROE. In this sense, it is inconsistent to analyze the ROE of one sample including firms with positive equity and firms with negative equity. For this reason, we excluded from the sample the observations with negative net equity.

Therefore, considering that ROE (Return on Investment) is an indicator that measures a company's ability to generate value for the business from the assets available, the calculation uses net profit, the amount left for the company after expenses have been written off, and shareholders' equity, the total of assets and rights minus the company's liabilities. The companies must be in the same sector, otherwise the results would not be comparable.

Thus, the final sample consisted of an unbalanced panel of 282 unique firms and 1,629 observations over the period 2008-2019. It should be noted that the number of observations can vary each year due to the entry of firms in the dataset after 2008 and/or its exit before 2019 (Table 1).

Table 1: Nº of observations per year

Year	Nº of firms
2008	140
2009	146
2010	151
2011	135
2012	145
2013	137
2014	129
2015	133
2016	122
2017	129
2018	131
2019	131

Source: Own elaboration

The sample is robust, representing 42% of the newspaper publishing companies in Portugal (Eurostat, 2022). It includes the main national newspaper publishing companies, which capture more than 70% of advertising investment in the sector, and regional and local newspaper publishers, both large and small companies. However, those newspapers belonging to the Catholic Church could not be included, because they are not legally required to report their financial accounts. On the other hand, companies with legal forms different than public limited company or limited liability company also do not have to file accounts and are therefore not included in the sample. On the other hand, some of the companies considered also publish magazines, although their impact on the companies' overall economic activity is residual. In this respect, it should be noted that the companies followed a strategy of revenue diversification, so that their sales do not only come from the business of printed newspapers and news websites, but also from activities such as organizing events, selling associated products (e.g.: books, household utensils) or producing publications for other organizations (custom publishing) (de-Lima-Santos et al., 2022; Vara-Miguel et al., 2021).

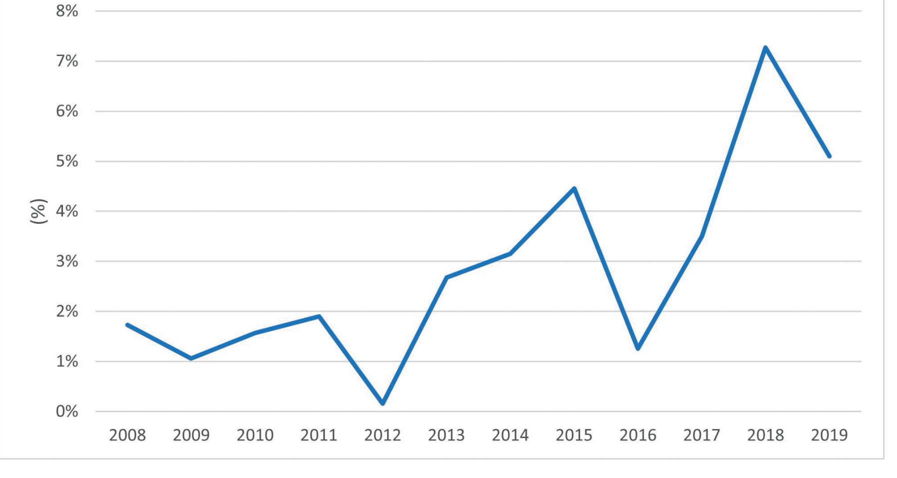
After obtaining the financial statements of these companies, we calculated the variables of interest for financial analysis. In detail, the key variables are the Return on Assets (ROA), as a measure of economic profitability, and the Return on Equity (ROE), as a measure of financial profitability. ROA is calculated as the ratio of operating profits or Earnings Before Interest and Taxes (EBIT) to total assets, indicating how many euros of operating profit the companies bring for each one euro of asset that has been invested. ROE is calculated as the ratio of net income, that is, profits after interest and taxes, to equity, indicating how many euros of profit the shareholders obtain for each one euro invested to the company.

EMPIRICAL RESULTS

THE ECONOMIC PROFITABILITY

The evolution of the economic profitability, measured by the ROA, shows that Portuguese newspaper publishers managed to recover their levels of the economic profitability after the crisis. As we can see in Figure 1, the average ROA fell from 2% to 0% between 2008 and 2012, recovering since that year and reaching values of 7% in 2018 and 5% in 2019.

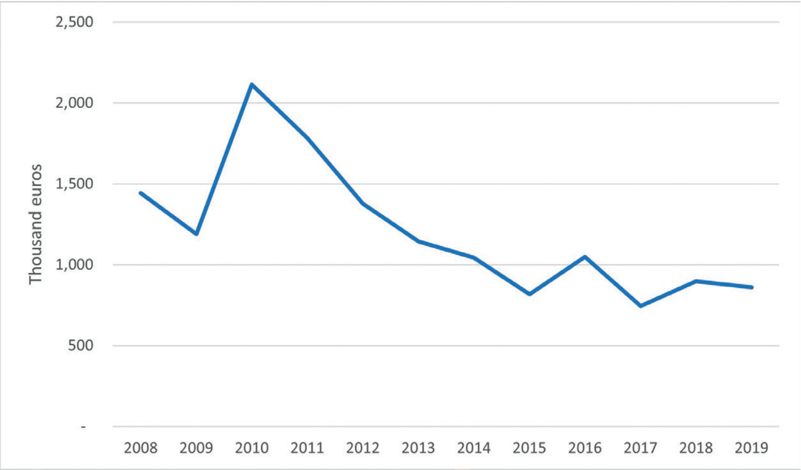
Figure 1: Average ROA (%) of Portuguese newspaper companies (2008-2019)



Source: Own elaboration

To understand the reasons for this evolution of the firms' economic profitability levels, it is necessary to look at some of its determinants. Thus, average company revenues fell over the whole study period; in 2019 they only represented 60% of their 2008 value (Figure 2). The economic recovery of the Portuguese economy from 2013 Q4 was not accompanied by a recovery in newspaper companies' revenues, which reflects the structural crisis of the sector, i.e. the decline of incomes from both readers and advertisers. Nevertheless, it is noteworthy that the level of company revenues remained stable from 2014 onwards.

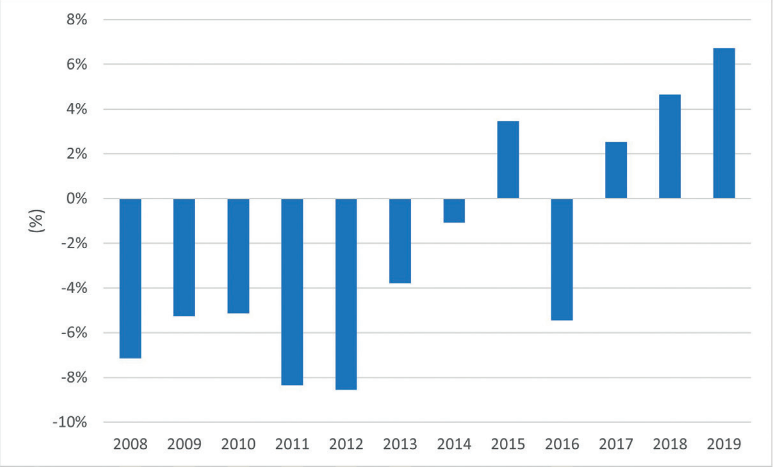
Figure 2: Average revenues (thousand euros) of Portuguese newspaper companies (2008-2019)



Source: Own elaboration

Considering this drop in revenues, the observed recovery of ROA was only possible because of the adjustment of operating costs carried out by newspaper publishing companies. While revenues dropped 60% on average over the study period, operating costs dropped 70%, allowing companies to improve their operating margins, especially after 2014. Figure 3 represents the evolution of the average gross profit margin, calculated as the ratio of EBIT to sales. It is important to note that, on average, until 2015, companies in the sector had an operating loss of approximately 4 euros for each 100 euros of revenue.

Figure 3: Average gross profit margin (%) of Portuguese newspaper companies (2008-2019)



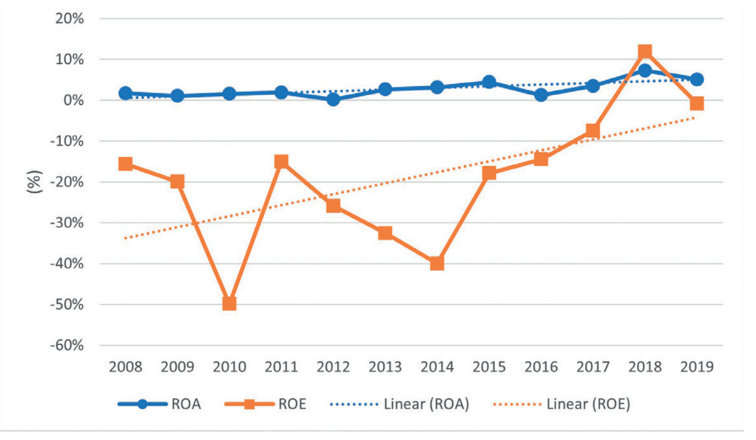
Source: Own elaboration

In summary, Portuguese newspaper publishing companies managed to recover their levels of economic profitability ratios from 2012 onwards. This was possible thanks to an even more severe cost adjustment than the fall in revenues which, in turn, remained stable from 2014 onwards.

THE FINANCIAL PROFITABILITY

The second part of the empirical analysis focuses on the evolution of the financial profitability of newspapers publishers. As we can see in Figure 4, the average ROE of the sample companies recorded negative values for almost the entire series. After fluctuating between values of -50% and -15% from 2010 to 2015, a recovery path was observed from 2014 onwards. In 2018 the ROE recorded a positive value (12%), although in 2019 it would fall back below zero (-1%). These figures mean that, on average, the shareholders of the Portuguese newspaper publishing companies have lost money during the sample period, i.e., there are no profits available to the companies' shareholders. It can also be seen that the financial profitability of the Portuguese newspaper publishing companies followed a similar recovery path that of the economic profitability, although the recovery was not sufficient to reach positive average values.

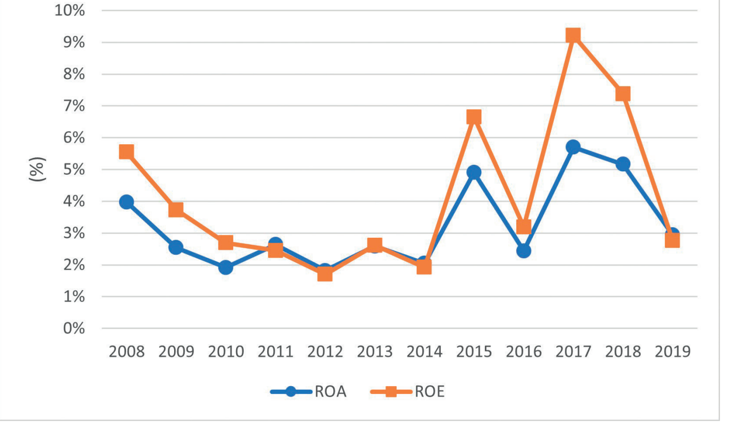
Figure 4: Average ROA (%) and ROE (%) of Portuguese newspaper companies (2008-2019)



Source: Own elaboration

In order to get a clearer picture of the industry's performance, we calculated the median values of ROA and ROE, represented in Figure 5. The results show that at least 50% of the companies maintain positive financial profitability levels over the entire study period. By comparing these data with those of the Figure 4, we can conclude that there is a relatively small group of companies with extremely negative values of financial profitability that distorted the average value of the industry's performance.

Figure 5: Median ROA (%) and ROE (%) of Portuguese newspaper companies (2008-2019)



Source: Own elaboration

THE FINANCIAL PROFITABILITY AND LEVERAGE

Another conclusion that can be drawn from the Figure 5 is that some firms could take advantage of a positive effect of financial leverage (gearing) on the ROE, since the median ROE is higher than ROA for almost the entire series. Zooming on this relationship between financial profitability and debt, a straightforward and simplified formula that relates two firm features is the following:

$$\text{ROE} = [\text{ROA} + (\text{Debt} / \text{Equity})\ (\text{ROA} - \text{cost of debt})] \times (1\text{-tax rate})$$
(Equation 1)

It can be observed that when the ROA is higher than the cost of debt, shareholders will obtain a financial return (ROE) greater than the economic profitability.

To gain a better understanding of how this relationship could have affected the firm's financial profitability over the sample period, we split the sample into two sub-samples depending on whether the observations had the ROA greater than the ROE (868 observations or 53% of the observations) or whether the ROE was greater than the ROA (758 observations or 47% of the observations[2]). Then, we calculated the median values of the main parameters in Equation 1; namely, ROA, ROE, the cost of debt and the leverage-debt ratio, calculated as the relation of total liabilities to total equity.

The results for the ROA, ROE and cost of debt are presented in Figure 6. The cost of debt was calculated as the ratio of total interests (finance costs) to total liabilities. Some conclusions deserve to be highlighted: First, for companies with ROE below ROA, the median ROA was negative in almost the entire period, with values between -5% and 1%; while for companies with ROE outperforming ROA, the median ROA was positive for the whole period, with values between 6% and 13%. Second, the cost of the debt was very low for the two subsamples, with median values close to zero for both groups of companies. Therefore, it was the negative operating results (i.e., negative or very low ROA), insufficient to cover the cost of debt, which causes ROE to be lower than ROA and negative for a significant part of the observations.

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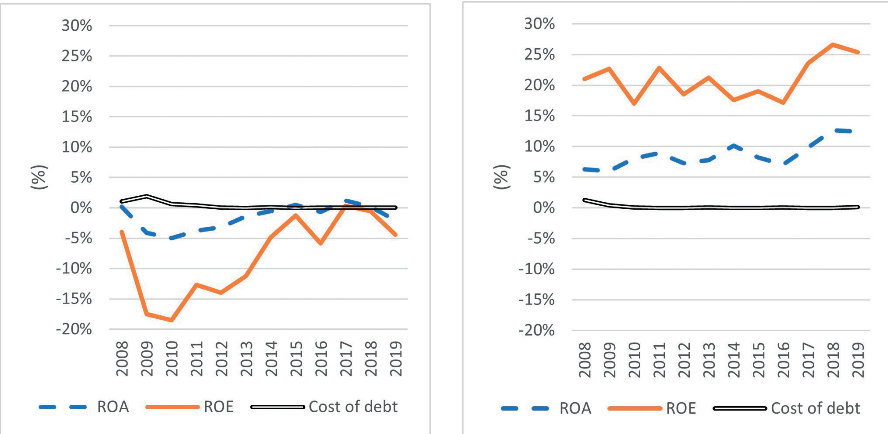
[2] It should be noted that 3 observations had the ROA equal to the ROE.

Figure 6: Median ROA (%), ROE (%) and cost of debt (%) according to the type of leverage effect on financial profitability

ROA>ROE (53% of observations)	ROA<ROE (47% of observations)

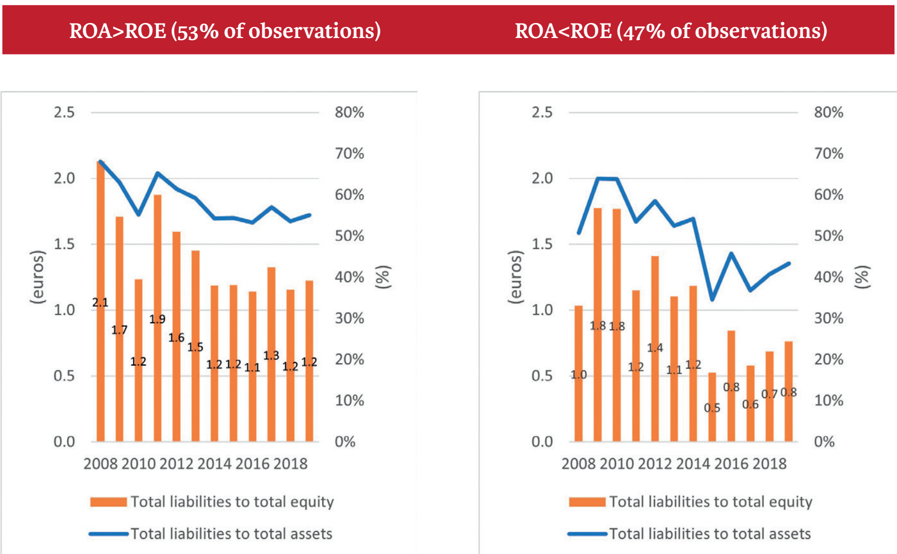


Source: Own elaboration

Considering these results, companies should have modified their capital structure. For those companies operating with a ROA higher than the cost of debt, they could have increased the proportion of debt. However, those companies with a ROA below (or very close to) the cost of debt should have reduced their leverage-debt ratios. These changes in the capital structure are possible as long as the credit availability scenario at the macroeconomic level and the individual company's situation (debt ratio, ability to repay debt at the microeconomic level) allow it.

In this respect, we analyzed the financial strategies followed by the Portuguese newspaper publishing companies during the study period. Figure 7 displays the median of the relation of total liabilities to total equity (Equation 1) and the relation of total liabilities to total assets (or ratio of financial dependence) for the two subsamples. Some trends should be noticed: First, companies operating with negative leverage effects were less indebted than those with ROE higher than ROA and, in addition, have made an effort over the period to decrease their debt levels. The median financial dependence of this subsample ranged from 64% in 2009-2010 to values between 37% and 43% in 2017-2019. This progressive deleveraging, together with the relative improvement in ROA, is what explains the improvement in ROE for this group of companies over the study period, even maintaining negative figures (Figure 6). Second, companies with ROE higher than ROA, while maintaining a higher financial dependence than those with ROE lower than ROA, also reduced their level of debt over the period, from 68% in 2008 to 55% in 2019. This may seem contradictory at first glance; given that they benefit from positive leverage effects, it might seem logical to take on more debt. However, it should be noted that the levels of financial dependence referred to above are already very high. Increasing debt levels above a certain threshold could compromise the solvency of companies, which in turn would make it more difficult and expensive to access the credit needed to refinance liabilities, putting the business at risk.

Figure 7: Median of the ratios of total liabilities to total equity (%, left axis) and total liabilities to total assets (%, right axis) according to the type of leverage effect on financial profitability



Source: Own elaboration

CONCLUSIONS

ROE is an indicator of management efficiency, in that it shows that the company is "putting to good use" the shareholders' money. In other words, ROE is a financial indicator capable of measuring a company's ability to generate value from the resources it initially has - i.e. it shows how much profit is generated in relation to the capital invested. In this sense, in this research, we analyzed the evolution of the financial performance of the companies in the Portuguese newspaper industry in Portugal. Recent studies have reported that newspaper publishing companies were able to recover their economic profitability after the crisis experienced by this industry. However, it was still unclear if this improvement in the operating performance (ROA) was followed by an improvement of the financial performance (ROE) of newspaper publishing companies. Previous studies have drawn attention to the high leverage of companies in this industry, which in theory could lead to high costs of debt and consequently low financial returns for shareholders.

As a general conclusion, the results of this study indicate that high leverage is not necessarily negative for the financial profitability of companies in newspaper industry. Almost half of the sample companies, 47% of the observations, benefited from positive leverage effects, obtaining a positive financial profitability, even though their debts represented on median between 55% and 70% of their assets. However, the other subsample of companies (53% of observations) with also high debt levels, operated with negative effects of their financial leverage.

Given that debt costs were similar for both groups, and rather low, the source of the different effects of leverage must be sought in the other factor in the equation that relates financial profitability and leverage: economic profitability. The group of companies with lower ROE than ROA recorded very negative figures of operating profit during the study period, insufficient to cover the cost of debt. In contrast, those companies with higher ROE than ROA recorded positive figures of ROA which, together with the low cost of debt during the study period, led them to obtain high financial profitability ratios.

Thus, the main task for companies with negative ROE is to focus on improving their efficiency in asset management and making operating profits that allow them to offset the cost of debt. Additionally, they should reduce their debt to mitigate the negative effects of leverage with which they operate. In fact, the series show that there is a trend towards deleveraging by these companies, which explains the relative improvement in ROE over the period. Maintaining a negative ROE is a disincentive to invest or, conversely, an incentive to divest, which poses a risk for these group of newspaper publishing companies.

The analysis shows that most of the companies in the industry operated with both positive economic and financial profitability over the study period. Moreover, despite fluctuations, there is an improving trend in the last years. Therefore, contrary to the pessimistic views that emerged in the worst years of the crisis, the data indicate that the newspaper publishing business remains viable, at least after adapting to the structural changes brought about by digitalization.

LIMITATIONS AND FUTURE RESEARCH

This method (calculating ROE) has some limitations due to the exclusively quantitative perspective used, so it could be complemented with a more qualitative assessment in terms of management. And because it is an accounting indicator, it does not reflect the market situation of the company and its shares, in the case of listed companies. On the other hand, a company may initially seem attractive because it has a high ROE, but the ROE may not be sustainable in the long term, given the increase in competition, deterioration in the business environment, etc. Regarding the central objective of this article no significant limitations were identified and in fact, as stated and justified in the methodological description, the sample is quite robust in relation to the universe of newspaper publishers in the Portuguese market. However, currently the business model of newspaper publishers is more diversified and for this reason -because in most cases the accounts are aggregated- it is not possible to ascertain the real weight of the provision of other services/products compared to the main activities of publishing newspapers and news websites. In this sense, one of the next lines of research would be to deepen the financial data in order to disaggregate the percentage value of each revenue source.

On the other hand, once data become available, future research should analyze the impact of Covid-19 pandemic on the business model of newspaper publishers and the profitability of their operations.

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