

SEPARATION BETWEEN MANAGEMENT AND OWNERSHIP: IMPLICATIONS TO FINANCIAL PERFORMANCE

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Abstract

Using panel data, this article shows that agency costs, a consequence of the separation between ownership and management, are not relevant in explaining the financial performance of Portuguese companies since, on the one hand, greater size, greater liquidity and higher level of risk do not mean decreased financial performance and, on the other, greater level of debt does not mean increased financial performance. The results indicate that the fact of managers being better informed than owners, about companies' opportunities and specific characteristics, does not necessarily mean behaviour that contributes to diminished financial performance in Portuguese companies.

Keywords: Agency Costs, Financial Performance, Information Asymmetry, Managers, Owners, Panel Data

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1. Introduction

Until the mid 70s, economists viewed the firm as a unit transforming inputs in outputs, not bothering to study its organizational structure, nor the possible implications of its agents' behaviour for performance. From the mid 70s, economists begin to concern themselves with studying the organizational structure of the company, and in this context appears the work of Galai and Masulis (1976) and Jensen and Meckling (1976), originating Agency Theory. Agency Theory is based on construction of the utility functions of the agents involved in the organizational relationships established in the company, the main question being the possibility of the utilities of the different agents involved in its functioning being divergent.

Galai and Masulis (1976) and Jensen and Meckling (1976), conclude that the existence of information asymmetry limits the functioning of the company, since the different agents do not all have the same amount of information. Based on different levels of information, agents try, in particular circumstances, to maximize their individual utility, conflicts of interest being inevitable. The theoretical and empirical development of Agency Theory has tried to analyse the conflicts of interest among the various agents who make up the company, also trying to find ways of minimizing those conflicts.

One of the most relevant aspects of Agency Theory in the context of business organizations deals with the conflict of interests between managers and owners, a consequence of information asymmetry existing in their relationship. According to Galai and Masulis (1976), Jensen and Meckling (1976), Fama

and Jensen (1983), Jensen (1986), and Stulz (1990), managers are better informed than owners about certain specific aspects of company management, for example, about investment possibilities. The fact that owners have less information leads managers to try to maximize their utility, to the detriment of owners' utility, investing in projects that contribute to improving their personal benefits but harm financial performance.

In this study, using panel data, the research question is to find out if agency costs, a consequence of the separation of management and ownership, limit the financial performance of Portuguese companies.

An increase in company size can contribute to greater separation of management and ownership, a consequence of information asymmetry, affecting financial performance. Higher levels of debt, and lower levels of liquidity, can help to mitigate agency costs, a consequence of the separation of management and ownership, since managers must make periodic payment of debt charges, having less finance available for investments that may contribute to diminished financial performance. A higher level of risk can contribute towards managers investing in projects with a currently negative net value, without the owners realizing, contributing to diminished financial performance. Therefore, we intend to test empirically if size, debt, liquidity and level of risk limit the financial performance of Portuguese companies, as a consequence of aggravated agency costs resulting from the separation of management and ownership.

With this aim, we divide this study as follows: in section 2 we present the hypotheses for investigation according on the expected relationship between

explanatory variables and financial performance, based on agency costs resulting from the separation of management and ownership; in section 3 we present the methodology used; in section 4 we present the results obtained; and in section 5 we present the conclusions of this study.

2. Hypotheses for Investigation

Next we present the relationships expected between the variables already mentioned and financial performance, based on agency costs resulting from the separation of management and ownership.

2.1. Company size

Jensen and Murphy (1990), conclude that company size is negatively related to financial performance since managers, taking advantage of the lesser possibility of control by owners, given the greater size of companies, invest in projects that allow them to obtain better personal benefits, rather than increase management efficiency and consequently financial performance. Gardner and Grace (1993) and Cummins et al. (1999) reinforce the arguments of Jensen and Murphy (1990), concluding that the possible existence of less ownership control over managers' actions can lead to the latter investing in projects that give them greater prestige, such as those which contribute towards maximising company market share, something that can cause diminished financial performance. Larger companies are subject to an aggravation of agency costs resulting from the separation between management and ownership. Based on the arguments set out, we formulate the following hypothesis:

H1: Greater company size means diminished financial performance, as a consequence of increased agency costs resulting from the separation of management and ownership.

2.2. Debt

Fama and Jensen (1983), Jensen (1986), Berger et al. (1995), Wells et al. (1995) and Adams (1996), based on agency costs resulting from the separation of management and ownership, conclude that debt can positively influence the financial performance of companies. On one hand, owners resort to debt with the purpose of disciplining managers' actions, reducing free cash flows, since managers must make periodic payment of the debt capital and interest. On the other hand, increased debt means increased probability of bankruptcy which also contributes towards increased discipline among managers. Improvement in management efficiency, a consequence of increased debt, means, according to Fama and Jensen (1983), Jensen (1986), Berger et al. (1995), Wells et al. (1995) and Adams (1996), an increase in companies' financial performance. Based

on the arguments set out, we formulate the following hypothesis:

H2: Higher company debt means increased financial performance, as a consequence of diminished agency costs resulting from the separation of management and ownership.

2.3. Liquidity

Fama and Jensen (1983) and Jensen (1986) conclude that greater levels of company liquidity can mean lower financial performance, a consequence of increased agency costs resulting from the separation of management and ownership, since managers are better informed than owners about the functioning and investment possibilities of companies. Managers, given the greater ease of meeting the short-term responsibilities of companies, a consequence of a higher amount of free cash flows, can invest in projects with a negative liquid current value that allow them to increase their personal prestige, but which mean diminished financial performance. Based on these arguments, we formulate the following hypothesis:

H3: Higher levels of company liquidity mean diminished financial performance, a consequence of increased agency costs resulting from the separation of management and ownership.

2.4. Risk

According to Galai and Masulis (1976), Jensen and Meckling (1976), Lamm-Tennant and Starks (1993), Oppenheimer and Schlarbaum (1993) and Adams and Buckle (2003), we can expect a negative relationship between the level of volatility of companies' operational results and their financial performance, a consequence of increased agency costs resulting from the separation of management and ownership. The authors state that greater volatility of operational results has, in many situations, its root in the greater competition companies face, which causes considerable volatility in receipts. Managers, better informed than owners about the functioning of companies, realize the greater level of risk and try to maximize their personal benefits, something which can imply diminished financial performance. Based on the arguments set out, we formulate the following hypothesis:

H4: Higher levels of company risk mean diminished financial performance, as a consequence of increased agency costs resulting from the separation of management and ownership.

3. Methodology

3.1. Database

In this study we use a database of the Exame Review that publishes annually (from 1991) a database of the 500 biggest companies in Portugal, with data

collected by the local filial of the Dun & Brad Street Consulters Multinational. The companies included in the database were selected on basis of total value of sales and excludes companies that don't send their financial documents to be analyzed. We study a panel data of firms from 1999 to 2003. First, to avoid selection issues we study a balanced panel data of 162 during 5 years. Finally, we selected the companies with separation between ownership and management to period from 1999 to 2003. Based on the criteria mentioned above, we selected 141 companies for the period 1999-2003, and so we have a panel made up of 705 observations.

3.2. Variables

According to the literature, and previously defined hypotheses for investigation, we consider as possible variables that can influence the performance of Portuguese companies: size, debt, liquidity, and level of risk. The following table gives us a description of the variables used and their corresponding measurement.

(Insert Table 1 About Here)

3.3. Method of Analysis

Companies' specific characteristics are distinct in the majority of situations. The data assessment methods using panel models have the great advantage of measuring those different characteristics, called non-observable individual effects. A regression by the ordinary least square method does not allow for measurement of companies' non-observable individual effects, and so normally the assessed parameters do not evaluate correctly the relationships between variables. Consideration of non-observable individual effects has the great advantage of mitigating the problem of the absence of possibly relevant variables not included in explaining the dependent variable. In this study we use initially three distinct forms of assessment: 1) regression by the ordinary least square method; 2) panel model admitting the existence of random non-observable individual effects; and 3) panel model admitting the existence of fixed non-observable individual effects. We can present the assessment model in the following way:

$$y_{it} = \alpha + X'_{it} \beta + u_{it}, \quad \text{with} \\ i = 1, \dots, 162; t = 1, \dots, 5,$$

in which i represents each of the companies and t the periods, y_{it} is the vector of the explained variable, X'_{it} is the vector of the explanatory variables of each company in each period, β is the vector of the assessed parameters, u_{it} is the error vector given by:

$$u_{it} = v_i + e_{it},$$

in which v_i is the non-observable individual effect of each company and e_{it} is the error which assumes normal distribution.

After evaluation, we test the relevance of companies' non-observable individual effects, applying the LM test. The LM test verifies the null hypothesis that non-observable individual effects are not relevant in explaining the dependent variable, against the alternative hypothesis that non-observable individual effects are relevant. If we reject the null hypothesis, we can conclude that a simple regression by the ordinary least square method is not the most correct form of assessment, given the relevance of non-observable individual effects.

If we conclude that non-observable individual effects are relevant, we proceed to comparison of the panel model assuming the existence of random non-observable individual effects, with the panel model assuming the existence of fixed non-observable individual effects. The random non-observable individual effects model assumes that non-observable individual effects are not correlated with the explanatory variables. On the other hand, the fixed non-observable individual effects model assumes the existence of correlation between non-observable individual effects and the explanatory variables. With the aim of testing which model is most appropriate, we use the Hausman test. The Hausman test verifies the null hypothesis that there is no correlation between non-observable individual effects and the explanatory variables, against the alternative hypothesis that there is correlation between non-observable individual effects and the explanatory variables. If we cannot reject the null hypothesis, the panel model assuming the existence of random non-observable individual effects is seen to be more appropriate. If we reject the null hypothesis, given the existence of correlation between non-observable individual effects and explanatory variables, the panel model assuming the existence of fixed non-observable individual effects is more appropriate.

We test for the existence of error autocorrelation. If autocorrelation exists, it is necessary to proceed to an assessment of the most appropriate model considering its existence.

We used annual *dummy* variables so as to remove the impact of possible macroeconomic alterations on the financial performance of Portuguese firms.

4. Results

In table 1 we present the results of the descriptive statistics to variables.

(Insert Table 2 About Here)

Results of the descriptive statistics of the variables indicate that companies' financial performance presents some volatility, since the

standard deviation is above the mean, the same occurring with the proxy measuring the level of risk. We present the results of applying the different panel models in the following table 2.

(Insert Table 3 About Here)

The results of the LM test indicate that we can reject the null hypothesis, at 1% significance, that non-observable individual effects are not relevant. This being so, we can conclude that regression by the ordinary least square method is not the most appropriate way of carrying out an assessment of the financial performance equation.

From application of the Hausman test we can conclude that we reject the null hypothesis of absence of correlation between non-observable individual effects and the explanatory variables, and so the most appropriate method to evaluate the financial performance equation is the panel model assuming the existence of fixed non-observable individual effects.

From application of the first order autocorrelation test, we find we reject the null hypothesis, at 1% significance, of absence of first order autocorrelation, and so we see to be appropriate assessment of the panel model of fixed non-observable individual effects consistent with the existence of autocorrelation. We cannot reject the null hypothesis of absence of second order autocorrelation.

Results of the Wald and F tests indicate we can reject the null hypothesis, at 1% significance, that explanatory variables are not relevant in explaining financial performance.

Based on the results of the panel model of fixed non-observable individual effects, we can establish the following relationships:

1. there is a positive, and statistically significant, relationship between company size and financial performance;
2. there is a negative, and statistically significant, relationship between company debt and financial performance;
3. there is a negative, and statistically not significant, relationship between company liquidity and financial performance;
4. there is a positive, and statistically significant, relationship between companies' level of risk and financial performance.

Agency costs resulting from the separation of management and ownership, as a consequence of greater company size, are not relevant in the Portuguese case, since company size influences financial performance positively, and so we reject hypothesis H1 of this study. We can conclude that the greater size of Portuguese firms does not necessarily mean increased agency costs resulting from the separation of management and ownership, and a consequent reduction of financial performance. The larger size of Portuguese companies does not contribute to managers, taking advantage of greater information asymmetry, investing in projects which

increase their own utility and could contribute to reduced financial performance.

The negative relationship between debt and financial performance does not allow us to accept as valid hypothesis H2. Increased debt does not contribute to improvement of companies' financial performance, a consequence of reduced agency costs resulting from the separation of management and ownership. We cannot conclude that debt is used as an instrument to discipline managers, preventing them from investing in projects which do not contribute to improving companies' financial performance.

The statistically not significant relationship between the liquidity of Portuguese companies and their financial performance does not allow us to accept hypothesis H3 of this study as valid. Higher levels of liquidity do not necessarily mean increased agency costs resulting from the separation of management and ownership. Greater level of company liquidity, allowing managers to meet short-term commitments more easily, does not contribute to reduced financial performance, as a consequence of the possibility of managers investing in projects that increase their own utility but which could have a current negative liquid value, contributing to reduced financial performance. The positive relationship between companies' level of risk and financial performance does not allow us to accept hypothesis H4 as valid. This result allows us to conclude that higher levels of risk do not necessarily mean increased agency costs resulting from the separation of management and ownership. Greater level of risk does not contribute to managers investing in projects that contribute to increasing their own utility, affecting financial performance.

5. Conclusion

Using panel models, we show that the financial performance of Portuguese companies is influenced by size, by debt and by level of risk. We cannot conclude that the financial performance of Portuguese companies is influenced by liquidity.

We do not find empirical evidence to prove the relevance of agency costs resulting from the separation of management and ownership in explaining the financial performance of Portuguese companies, since greater size, liquidity and risk do not influence financial performance negatively, and greater level of debt does not influence it positively.

The results indicate the fact that managers have more information than owners about opportunities and specific characteristics of companies, does not necessarily mean managerial behaviour that contributes to diminished financial performance.

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Appendices

Table 1. Measurement of variables

Variables	Measurement
<i>Dependent variables</i>	
Financial Performance (F. PERF)	Ratio between Operating Income and Total Assets
<i>Independent variables</i>	
Size (SIZE)	Logarithm of Sales
Debt (LEV)	Ratio between Total Liabilities and Total Assets
Liquidity (LIQ)	Ratio between Current Assets and Short-Term Liabilities
Risk (EVOL)	Absolute Value of Percentage Change of Operating Income

Table 2. Descriptive Statistics

Variable	Observations	Mean	S.D.	Minimum	Maximum
F. PERF	705	0.059	0.080	-0.236	0.528
SIZE	705	4.876	0.556	3.876	6.768
LEV	705	0.552	0.221	0.084	1.074
LIQ	705	1.798	1.298	0.061	11.64
EVOL	705	2.910	11.29	0.001	213.2

Table 3. Panel Models

Dependent variable: F. PERF				
Independent variables	Pooled OLS	Random Effects	Fixed Effects	Fixed Effects AR(1)
SIZE	0.04109*** (0.0054)	0.06192*** (0.00691)	0.07054*** (0.00765)	0.08001*** (0.00965)
LEV	-0.10565*** (0.01589)	-0.11569*** (0.01712)	-0.12987*** (0.02198)	-0.15897*** (0.02382)
LIQ	0.00881*** (0.00242)	0.00471 (0.00498)	0.00192 (0.00241)	-0.00401 (0.00345)
EVOL	0.00007 (0.00028)	0.00042*** (0.00014)	0.00041*** (0.00010)	0.00052*** (0.00012)
Observations	705	705	705	705
LM (χ^2)		684.63***		
Hausman (χ^2)		29.13***		
R ²	0.1208	0.1589	0.1675	0.1698
Wald (χ^2)		120.36***		
F statistic	26.17***		28.02***	20.41***
Sargan (χ^2)				
m ₁			-5.78***	
m ₂			-0.39	

1. Heteroskedasticity consistent and asymptotic robust standard deviations are reported in brackets.
2. *** indicates significance at the 1% level, ** indicates significance at the 5% level, and * indicates significance at the 10% level.
3. The LM test the statistical significance of the individual effects, are asymptotically distributed as χ^2 , under the null hypothesis of no significance.
4. The Hausman test the correlation between individual effects and independent variables, are asymptotically distributed as χ^2 , under the null hypothesis of no correlation.
5. Wald is a test of the joint significance of the estimated firm specific coefficients, are asymptotically distributed as χ^2 under the null hypothesis of no relationship.
6. F is a test of the joint significance of the estimated firm specific coefficients, are asymptotically distributed as $N(0,1)$, under the null hypothesis of no relationship.
7. The m1 test is a test for first order autocorrelation of residuals and is distributed as $N(0,1)$, under null hypothesis of no first order autocorrelation.
8. The m2 test is a test for second order autocorrelation of residuals and is distributed as $N(0,1)$, under null hypothesis of no second order autocorrelation.
9. Estimations include constant and time dummy variables.