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The influence of the strategic financial policies on share valuation in an unstable economic environment

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Abstract. *In an unstable environment, the investors become more aware of the importance of a good assessment of the risk implied by their investment. Therefore, much attention is given to the amount of information provided by the issuer, as well as to the signals it offers to investors. The financial literature emphasizes the role of the dividend policy in signaling the financial soundness of the companies. Our paper aims to verify if the dividend and financing policies of the companies have a role to play in the share valuation in an unstable economic environment and if their explanatory power differs with the phases of the economic cycle. The period 2006-2010 was chosen in order to test our model, as it corresponds to a period of the economic cycle similar to the present one, which may lead to similar behavior of the market participants. Moreover, the behavioral economics sustains the importance of the recent experiences in shaping actors' responses in conditions perceived as similar. Our analysis is made on a worldwide database including 5391 companies listed in the most important market indices on 82 national capital markets. We chose to multiple linear regressions for successive yearly periods in order to put in evidence in a straight and unambiguous manner the influence of the dividend and financing policies on the share valuation. It puts in evidence that the dividend policy remains an important signal for the investors and it is taken into consideration even more seriously in unstable economic environment. Moreover, the financing policy is emphasized as important signal in investors' eyes.*

Keywords: portfolio choice; investment decisions; capital budgeting; fixed investment and inventory studies; capacity.

Introduction

In periods perceived as unstable by the investors, the market evolution becomes difficult to understand, to forecast and to deal with. Therefore, the companies need to have as much information as possible on the expected investors' behavior and on how the market may perceive their decisions, in order to keep a good relation with the investors and to make the best decisions for the company, but also for maximizing shareholders' value.

The recent economic turbulences reflected in important drops of the daily returns on the American capital markets which rapidly propagated in Asian and European markets led most actors to comparing the present period to 2008-2009. Although the main opinion expressed both by market analysts and scientists is that a recession period right now is less

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dangerous than in 2008-2009 due to the enhanced financial discipline that succeeded the financial crisis, the media did not hesitate to compare the drop of the returns in January-February 2018 to that in October 2008. The investors also manifested a prudent behavior, reflected in successive drops of more than 2 percent in daily returns in the same week, which rapidly gave birth to a contagion phenomenon on the main Asian and European capital markets.

This is not the only similarity noted between the present period and that of the beginning of the financial crisis in 2008. Please note that the main market analysts already warned about the present economic cycle being the longest in the history of the modern capital markets in most of the economies. Though the longevity of the economic growth can be in part explained by the need of the world economy to recover after the financial crisis, the fact that in some economies the consumption rate remained superior to income growth rate and the public policies remained oriented on public expenses are serious concerns regarding the stability of some important national capital markets in the following period.

In this context, it is important to understand as well as possible which are the triggers that influence the investors' behavior and what can issuers do in order to keep their investors confident in their financial soundness. In this respect also, the reality changes fast and this is a supplementary source of uncertainty in investors' eyes.

The world economy suffered major changes in the last decade, being overwhelmed with technological news that modified entirely the financial markets, with speculative bubbles generating a world-wide financial crisis and giving birth to numerous behavioral theories in the financial literature. Nowadays, the transaction volume on the capital markets, the evolution of their prices and a good functioning of the capital markets are vital for the well-being of the economy in a context where the national financial systems become more and more integrated. The understanding of the causes of rapid and important changes in stock prices and of their unexpected evolution is extremely interesting for every actor on the capital market. In this context, the signaling theory appears as a natural answer for this search, although we are aware of the complexity of the factors that influence the evolution in stock prices which cannot be resumed to the signals sent by the issuer. However, it is interesting to observe how the signals impact on the stock price evolution and to understand if they have higher or on the contrary smaller importance in an unstable environment. This can give important clues to decision makers in the companies regarding the strategic financial decision to be made in periods with high perceived uncertainty on the capital markets in order to preserve their good relation with stakeholders and to maximize shareholders' wealth.

Some clarifying remarks impose on the signaling concept. In order to rightfully discern between a performing issuer, with shares able to preserve and maximize shareholders' wealth and a non-performing one, the investors seek for signals that the performing company is expected to send to investors and that cannot be replicated by the non-performing ones. The financial literature offers examples of financial signals such as a constant dividend distribution (see Dragotă et al., 2016, Berk & DeMarzo, 2011etc) or bank indebtness (Ross, 1977), but also, to some extent, the capital budgeting (Dragotă& Dragotă, 2009) and the corporate social responsible investment (Semenescu&Curmei, 2015; Mazzei &al., 2015) or risk assessment (Dima, 2009; Dima and Vasilache, 2016). Our paper aims to

analyse how dividend policy and financing policy are perceived by the investors during unstable economic periods and if they have a role to play in shaping the evolution of the stock prices.

The methodology bases on an econometric approach that establishes the intensity of the link between companies' strategic financial policies and their price-to-book ratio as a proxy for their valuation by the investors. In order to put in evidence the effect of the specific phase of the economic cycle, the results have been presented yearly. Some features of the national financial system such as the development of the economy or the type of the financial system also may have a role to play in explaining the importance of signaling on the stock price evolution.

The paper is organized as follows. In the first part, we make a short incursion in the literature review on the subject. Then, the database construction and the methodology are presented. The results are described in the next section and then conclusions are formulated.

Literature review

The instability of the capital markets is accompanied, ore more exactly reflected, by investors' psychological changes and an impressive eruption of animal spirits. Our paper is also related to the effect of sentiment on the corporate performance. Our analysis grounds on well-known theories: agency theory, stakeholders' theory, stewardship theory, class hegemony and managerial hegemony (Mallin, 2007). Agency problems between shareholders and managers (Jensen & Meckling, 1976) can be dealt with by implementing various monitoring systems: dividend policy (Bhattacharya, 1979; Kalay, 1980; Easterbrook, 1984, La Porta et al., 2000), capital budgeting (De Jong, et al, 2007), cash reserves (Arslan et al., 2006; Berk &DeMarzo, 2008; Ameer, 2010; Huang et al., 2012), capital structure (Ross, 1977), their efficiency being affected by the financial crisis. Our aim in this study is to consider more in detail dividend policy and financial structure, which are recognized by the literature as powerful signals regarding the corporate performance and to study if they are taken into consideration by investors in their investment or disinvestment decisions.

In particular, as proven by a large stream of literature, the dividend policy acts as a powerful signal on the capital market as the decision of distributing dividends and moreover, the requirement of keeping the dividend stream constant or growing over the years requires the company to generate profits and annual cash flows in a sufficient amount. Hence, the investors have a powerful proof of the financial soundness of the company. Moreover, as Easterbrook (1985) concludes, the distribution of dividends may also work as a means of the shareholders' control upon the manager, hence mitigating type I agency conflicts. Easterbrook (1985) explains that the dividend distribution puts pressure on the manager to realize its goals with limited financial resources or to borrow from the bank. This obliges the manager to make efficient investments, but also to suffer a stronger control from the bank.

Ross (1977) also explains that bank loan is a form of signaling the financial soundness of the company, as less profitable firms will not be able to face financial constraints imposed by loan repayment.

The reader should also be aware that dividend policy and capital structure are opposite in investors' perception when it comes to establish and consider the risk of the company in their investment decision. From the investors' point of view, dividend distribution is perceived as a financial policy that mitigates their risk by providing periodic cash flows. On the other side, a company heavily indebted to the banks is more prone to bankruptcy risk and can be seen as riskier by the investors.

Akerlof & Shiller (2009) and Hoffmann et al. (2013) emphasize changes in risk attitudes during the crisis, also put in evidence by the "feed-back trading" phenomenon. The risk preference turns into a strong risk aversion and preference for cash holdings. Lamont and Stein (2006) evidence that the decision of new equity issuance, as well as mergers and acquisitions are influenced by investors' sentiment more than by fundamental indicators.
The preference of the investors for a particular stock, which is to be used as dependent variable in our approach is reflected in the evolution of the price to book value of the respective financial instrument (Lamont &Stein, 2006).

The relationship between investors' behavior and dynamics of the capital market indicators is fundamental in most of the modern theories in finance. Hence, most classical studies base on the premise that investors are characterized by rationality and risk aversion (Markowitz, 1952; Sharpe, 1964; Fama & French, 1992). These traits of the investors are difficult to measure. The theoretic ground of the investors' rationality hypothesis in classical finances is Fama's Efficient Markets Hypothesis. The corollary of the efficiency hypothesis is that the market should provide (more or less) equal opportunities to all investors. Departing from these theoretical hypotheses, numerous models testing the capital market efficiency have been proposed (DeBondt & Thaler, 1985; Fama &French, 1992).

Although the efficient markets hypothesis still dominates most of the models used in the study of the capital market, there are numerous studies that highlight market anomalies (Dragotă &Oprea, 2014; Țilică, 2014). Investors' behavior has gradually become a major topic of study in finance by relying on behavioral theories. Prentice (2007) identifies as psychological factors: obedience to authority, exaggerated optimism, overconfidence, etc., which generates errors in investors' estimations and opportunistic behavior from managers. In the same vein, Shiller (1984) highlights the important role of fashion in influencing the share price, whereas Poterba and Summers (1986) notes the persistence of volatility in capital markets and the difficulties encountered in allocating resources efficiently.

Besides, DeBont & Thaler (1985) shows that most people tend to overreact to unexpected and dramatic news. However, behavioral studies show their limits when it comes to explaining the diversity of investment behavior encountered in practice and the various configurations of the capital markets. Recent developments in behavioral finance (Baker &Wurgler, 2007) and recent developments in the field of cultural finances (Breuer and Quinten, 2010; Reuter 2010) highlight the complementarity between behavioral and socio-cultural factors. They encourage new research projects that aim at elucidating the role of cultural factors in different contexts.

Methodology

The initial dataset contains companies listed on 82 national capital markets for the period 2006-2010, the data being obtained from Thomson Reuters Datastream database. The companies have been chosen from the most important national indices. The period 2006-2010 has been chosen in order to better reflect the instability of the economic environment.

The years 2002007 can be seen as the pre-crisis period characterized by a previous long-term economic growth and important risk accumulation and allows us to make the comparison in order to put in evidence changes in investors' behavior.

We refined our sample by excluding some companies that activate in the financial industry as they are specifically regulated hence risking to affect the homogeneity of the data and to alter the significance of some indicators such as Price/Book Value or return (Isakov & Weisskopf, 2014). The financial companies include commercial banks, insurance companies but not financial intermediation companies. Another criterion for refining the database was to eliminate companies with negative or null values for total assets, net sales, long and short-term debts, market capitalization, and negative values for capital expenses. In order to exclude the influence of financially distressed companies we also excluded all companies with negative own equity. Moreover, we kept only the companies for which data was provided in each of the 5 years, in order to avoid the differences induced by young companies with an active investment policy and different patterns of dividend and financial structure policies.

Each series of data was winsorized by 1% of the total number of observations in order to exclude abnormal data. Hence, we obtained a number of 5391 companies in our database. In order to analyze the importance of the dividend policy as signaling instrument for the investors, the payout ratio was used as proxy of the dividend distribution. The capital structure decisions were reflected by the debt ratio computed as the long-term debt divided by total capital. The evolution of the stock price was taken into account by means of the Price/book Value (PBV) which represents the market price of the stock divided by its book value. As Anghelache (2009) mentions, PBV is highly correlated to the stock price, but has the advantage of allowing comparison between different companies.

An indicator that is expected to influence the evolution of the stock price besides the strategic financial policies of the company is the present return on invested capital computed as : $\frac{EBIT}{Long\ term\ debt+Equity}$

The size of the company has also been proven as important in explaining the stock price evolution as in Fama&French (1966). The company size can influence the return as big companies may be considered by the investors as too big to fail or at least more trustworthy. The size of the company is considered in our approach by the natural logarithm of the net sales. Another indicator considered in the study as a proxy for the systematic risk associated to the company is the volatility coefficient β.

The methodological approach consisted in multiple linear regressions estimated for each of the 5 years using the HAC estimator(Newey-West) in order to allow obtaining robust estimators to the autocorrelation and heteroscedasticity of the error term. The 5391 companies have been included in 10 economic sectors according to Datastream coding, and sector dummies have been used to analyze the robustness of the results.

Table 1. Clasification of the database by activity sector

Crt. no.	Activity sector	No. of companies
1.	Energy	461
2.	Raw materials	1124
3.	Industry	832
4.	Cyclical consumption product and services	905
5.	Non-cyclical consumption product and services	688
6.	Financial	484
7.	Health	289
8.	Technology	222
9.	Telecommunications	194
10.	Utilities	192

Source: Own computation.

Hence the regression equation is the following:

*P/BV = α + β1 * Return on invested capital + β2 * ln(Net sales) + β3 * Volatility coefficient + β4 * Debt ration + β5 * Payout ratio + β6 * capital expenses + β(7-15) * Industry dummies.*

An alternative specification was used in order to understand if the amount of dividends paid was the one that counts for the investors or just the decision of dividend distribution. Hence, in the regression above, the payout ratio was replaced by a dummy variable equal to 1 if the company distributes dividends and 0 otherwise.

The countries have been divided according to their market or bank-based financial system using the percentage of total market capitalization in GDP based on the data provided by World Bank for 2012, the countries with the indicator value above the average of 53.26% being considered as market-based financial systems. In order to divide the countries in developed and emergent the Monetary Fund classification was used, resulting 49 developed countries, 27 emerging countries and 6 not developed countries.

Results and discussions

The results of the econometric models are presented below.

In table 2, the influence of the dividend policy on the stock price evolution can be interpreted as follows. In 2006, the payout ratio did not significantly influence the investors' decision, the high perceived liquidity making the dividend distribution unimportant in the investment decisions. The years 2007, 2008 and 2009 recorded increasing importance of the dividend payout ratio in the investment decisions. It increased with the perceived degree of risk suggesting that investors are more interested in companies with higher payout ratio, as they reflect a lower level of risk on the market (the flight to quality phenomenon). 2010 recorded a negative influence of the dividend payout ratio on the price to book value corresponding to a generalized pessimism on the market and the relaxation of the investors' requirements in terms of dividends as they understand and accept the struggle of the companies of dealing with the financial crisis.

Table 2. Regression results using payout ratio as variable for dividend policy

	ROIC	Company size	Beta	Investment policy	Debt ratio	Payout ratio	R squared
2006	+***	-***	+	+	+***	-	17,52%
2007	+***	-***	+***	+	+***	+*	14,50%
2008	+***	-***	+***	+**	-	+***	10,55%
2009	+***	-***	-*	-*	+***	+**	10,14%
2010	+***	-***	+***	+**	+	-***	15,19%

Source: Own computations.

In table 4 below, the dividend decision is measured by the dividend distribution dummy. The negative sign put in evidence that companies with higher growth opportunities, which invest their entire profit seem to be better seen by the market.

Table 3. Regression results using dividend distribution dummy as variable for dividend policy

	ROIC	Company size	Beta	Investment policy	Debt ratio	Dividend distribution dummy	R squared
2006	+***	-***	+*	+	+***	-***	19,77%
2007	+***	-***	+***	+	+***	-***	14,19%
2008	+***	-***	+***	+*	-	-***	10,63%
2009	+***	-***	-**	-**	+***	-***	12,19%
2010	+***	-***	+***	+*	+	-***	15,70%

Source: Own computations

The analysis of the influence of the financial policy on the stock price seems to favor the signaling theory, in the sense that the companies with a higher debt ration are the ones with a better perception on the market. It proves that in terms of quality of the investment policy, investors still rely on the banks' expertise in order to control managers and prefer companies that borrow money from financial institutions.

Regarding the direct investment policy, the results show that investors preferred companies that made direct investments in 2008, before the crisis but manifested prudence in choosing companies that invested in 2009, due to the lack of investment opportunities perceived on the market. The tendency came back to normal in 2010, as the necessity of emerging from the crisis imposed.

The rest of the control variables had the expected signs, except for the year 2009 when the negative sign of the volatility coefficient confirms the flight-to-quality phenomenon.

The patterns are quite different when considering the differences between developed and emerging countries. Hence, in developed countries the investors' expectations for investments were higher, penalizing companies that distributed high dividends in 2008 and the signaling through bank debt more pronounces in influencing investors' decisions. In emerging markets, the pecking order theory seems to apply as the financial policy does not count in investors' decisions during unstable periods, while the dividend policy has also an inconclusive influence which is specific to weak capital markets.

The analysis in market based financial systems showed that the companies in those countries were less affected by the financial crisis, probable due to the role of the financial intermediary. In these countries, the dividend policy did not account in terms of signals in the investors' decisions except for 2010 when the negative sign of the coefficient suggests that investors preferred companies that did not distribute high dividends, hence dividends payout being more a signal of the lack of investment opportunities. On the other side, less indebted companies were preferred during the financial crisis due to their lower perceived bankruptcy risk.

On the opposite, among the companies that distributed dividends in market-based financial systems, those that distributed higher dividends were preferred by the investors, and capital structure remained during the entire period a strong signal for the investors. The results are available upon request.

Conclusion

The present paper deals with understanding the decision-making process of the investors on the capital markets in unstable periods, focusing on the signaling role of the dividend and financing policies.

The paper proves that overall, strategic financial choices are considered as important signals of the financial soundness of the companies during unstable economic periods, but the investors' preferences are dynamic and take into account the phase of the financial cycle, as well as the constraints imposed by the economic environment.

Hence, the role of the strategic financial policies as signaling instruments was noticed as very important in countries with market-based financial systems, while in emerging countries the significance of these signals was found as weak, probably related to the lack of financial education of the local investors.

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